LIVERMORE
CALIFORNIA

CITY COUNCIL

AGENDA
MONDAY, MARCH 25, 2024

REGULAR MEETING – 7:00 PM

MEETING PARTICIPATION INFORMATION CAN BE FOUND AT THE END OF THE AGENDA

IN PERSON INFORMATION:
CIVIC CENTER MEETING HALL
CITY COUNCIL CHAMBERS
1016 S. LIVERMORE AVENUE

CITY OF LIVERMORE YOUTUBE CHANNEL:
https://www.youtube.com/c/CityofLivermoreCalifornia

TV29:
Comcast TV Channel 29
tv29live.org

John P Marchand, Mayor
Robert W Carling, Vice Mayor
Ben Barrientos, Council Member
Evan Branning, Council Member
Brittni Kiick, Council Member

1. CLOSED SESSION - NONE.

2. CALL TO ORDER

ROLL CALL

Council Member Ben Barrientos
Council Member Evan Branning
Council Member Brittni Kiick
Vice Mayor Robert W. Carling
Mayor John Marchand

PLEDGE OF ALLEGIANCE

3. PROCLAMATIONS AND PRESENTATIONS

3.1 Confirm Advisory Body appointments to the Airport Commission, the Alameda County Mosquito Abatement District Board of Trustees, Beautification Committee, Commission for the Arts, Historic Preservation Commission, Library Board of Trustees, and City Historian, and direct the City Clerk to administer the oath of office.

Recommendation:
The City Council Subcommittee on Advisory Bodies recommends the City Council confirm the advisory body appointments to the Airport Commission, the Alameda County Mosquito Abatement District Board of Trustees, Beautification Committee, Commission for the Arts, Historic Preservation Commission, and the Library Board of Trustees and direct the City Clerk to administer the oath of office.

The Historic Preservation Commission recommends the City Council appoint Alan Frank as the City Historian.

Staff Report

3.2 Proclamation declaring March 2024 as March for Meals (#SaveLunch) Month, presented to Carrie Oldes, Spectrum's Meals on Wheels program manager.

Recommendation:
Staff recommends City Council declare March 2024 March for Meals (#SaveLunch) Month.

Staff Report
Attachments:
1. Proclamation

4. OPEN FORUM

- In conformance with the Brown Act, no City Council action can occur on items presented during Open Forum.
- To provide public comment in person, please submit a speaker card. When your name is called, walk to the lectern to address City Council.
- Comments are limited to a maximum of 3 minutes per person, per item. The Mayor may

reduce the amount of time based on the number of persons wishing to speak.

- Comments are limited to one comment per person per item regardless of format or time submitted (this includes email and e-comment submissions prior to the meeting as well as live comments during the meeting).
- Open Forum will conclude after 30 minutes; however, if there are additional speakers, Open Forum will reconvene before the meeting adjourns.

5. CONSENT CALENDAR

Consent Calendar items are considered routine and are acted upon by the City Council with a single action. Members of the audience wishing to provide public input must submit a speaker card found at the entrance of the Council Chambers. A speaker is limited to a single comment with a maximum of three minutes for the entire Consent Calendar. If Consent Calendar items are pulled for discussion by the City Council, a speaker will be allowed one comment on the items pulled for discussion and a separate comment for the remaining Consent Calendar. The one comment limit applies regardless of format or time submitted (this includes email and e-comment submissions prior to the meeting as well as live comments during the meeting).

5.1 Approval of draft minutes - March 11, 2024 Regular Meeting.

Recommendation:
Staff recommends the City Council approve the draft minutes.

Staff Report
Attachments:
1. DRAFT 2024-03-11

5.2 Resolution authorizing the execution of an agreement with Roofing Constructors, Inc. dba Western Roofing Services, a subsidiary of TectaAmerica to provide annual and semi-annual roof inspections, preventative maintenance, gutter cleaning and roof repair services for City owned buildings in an amount not-to-exceed $700,000 for a three-year term ending March 31, 2027.

Recommendation:
Staff recommends the City Council adopt a resolution authorizing the execution of a three-year agreement with Roofing Constructors, Inc. dba Western Roofing Services, a subsidiary of TectaAmerica to provide annual and semi-annual roof inspections, preventative maintenance, gutter cleaning and roof repair services for City owned buildings in an amount not-to-exceed $700,000 for a three-year term ending March 31, 2027.

Staff Report
Attachments:
1. TectaAmerica Proposal
2. TectaAmerica Award Letter
3. TectaAmerica 5th Year Renewal Letter 2024
4. Resolution
5. Exhibit A - Agreement

5.3 Resolution authorizing execution of an agreement with the Alameda County Flood Control and

Water Conservation District, Zone 7 for participation in the 2022 Urban Community Drought Relief Local Projects Grant Program.

Recommendation:
Staff recommends the City Council adopt a resolution authorizing the City Manager to execute an agreement with the Alameda Flood Control and Water Conservation District, Zone 7 for participation in the Urban Community Drought Relief Local Project Grant Program.

Staff Report
Attachments:
1. Award Letter
2. Resolution
3. Exhibit A - Agreement

5.4 Resolution authorizing execution of a purchase order with Belkorp Ag. LLC, for two John Deere Track Steer Loaders and associated equipment in the not-to-exceed amount of $203,260.

Recommendation:
Staff recommends the City Council adopt a resolution authorizing the City Manager to execute a purchase order with Belkorp Ag. LLC for two replacement John Deere Track Steer Loaders and associated equipment in the not-to-exceed amount of $203,260.

Staff Report
Attachments:
1. John Deere Construction Sourcewell Contract
2. Belkorp AG. LLC Quotation
3. Resolution

5.5 Resolution authorizing execution of a first amendment to the Airport Restaurant Lease Agreement with SAAB13, LLC.

Recommendation:
Staff recommends that the City Council adopt a resolution authorizing the City Manager to execute the first amendment to the Airport Restaurant Lease Agreement with SAAB13, LLC as agreed upon in the Settlement Agreement and Lease Amendment dated February 29, 2024.

Staff Report
Attachments:
1. Resolution
2. Exhibit A - First Amendment

5.6 Resolution approving the 2024 City of Livermore State and Federal Legislative Platform

Recommendation:
Staff recommends the City Council adopt a resolution approving the 2024 City of Livermore State and Federal Legislative Platform.

Staff Report

Attachments:

1. Draft 2024 Legislative Platform - Redlined
2. 2024 TVC Legislative Framework
3. Resolution
4. Exhibit A - Draft 2024 Legislative Platform

6. PUBLIC HEARINGS

Comments are limited to one comment per person per item regardless of format or time submitted (this includes email and e-comment submissions prior to the meeting as well as live comments during the meeting).

6.1 Hearing to consider the Housing Element Annual Progress Report, which tracks the City's progress towards implementing the Housing Element of the General Plan and meeting its Regional Housing Needs Allocation (RHNA), pursuant to Government Code Section 65400.

Recommendation:

Staff recommends the City Council adopt a resolution accepting the 2023 General Plan Housing Element Annual Progress Report.

Staff Report

Attachments:

1. 2024 Affordable For-Sale Prices and Rental Rates
2. 2023 Building Permit Activity Summary
3. 2023-2031 RHNA Progress
4. Resolution
5. Exhibit A - 2023 Annual Progress Report

6.2 Resolution authorizing, approving, and adopting an amended Permanent Local Housing Allocation (PLHA) program five-year plan to reallocate funds to support the shelter and housing assistance provided at Vineyard 2.0 as well as rental assistance provided by City Serve, and authorizing the City Manager to apply for PLHA funds from the State Department of Housing and Community Development in an amount not-to-exceed $1,251,240 and execute grant agreements consistent with the program activities defined in the amended PLHA 2019-2023 plan.

Recommendation:

Staff recommends that the City Council adopt two resolutions:

1. Authorizing, approving, and adopting an amended PLHA Plan for 2019-2023 allocations, which is attached to the resolution as Exhibit A;
2. Authorizing the City Manager, or her designee, to execute the PLHA program application for the 2023 PLHA NOFA, the PLHA standard agreement, and any subsequent amendments or modifications thereto, as well as any other documents that are related to the PLHA program or the PLHA grant awarded to the City of Livermore;
3. Authorizing the City Manager to accept and appropriate the allocations for the amended PLHA plan if awarded in an amount not-to-exceed $1,251,240, and directing the City Manager or her designee, to sign and submit Fund Requests and all required reporting

forms and other documentation as may be required by the State of California in connection with the grant; and

4. Authorizing the City Manager or her designee to sign all documents related to the execution of grant agreements with subgrantees receiving allocations of funds from the CA State Housing and Community Development PLHA program, including the selection of, and contracting with, service providers in amounts exceeding $100,000, consistent with the allowable activities in the PLHA program.

Staff Report

Attachments:

1. HCD Authorizing Resolution
2. Resolution
3. Exhibit A - Amended 2019-2023 PLHA Plan

6.3 Hearing to consider a request for an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Development Code Amendment, Vesting Tentative Parcel Map, Vesting Tentative Tract Map, Planned Development, and Site Plan Design Review for the SMP 39 and 40 Project to zone for and develop light industrial uses near the northwest part of the City.

Recommendation:

Planning Commission and staff recommend the City Council take the following actions to authorize the future development of light industrial buildings on the SMP 39 and SMP 40 properties:

1. Adopt a resolution certifying the Final Environmental Impact Report for the SMP 39/SMP 40 Project and adopting California Environmental Quality Act Findings, A Statement of Overriding Considerations, and a Mitigation Monitoring and Reporting Program;
2. Adopt a resolution approving General Plan Amendment (GPA) 21-001, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008;
3. **Introduce an ordinance** and waive the first reading pre-zoning the SMP 39 and SMP 40 properties to Planned Development - Industrial (PD-I) 22-001 and the Additional Annexation Only Parcels to Open Space - Floodplain (OS-F) consistent with Planned Development - Industrial (PD-I) 22-001, Zoning Map Amendment (ZMA) 21-002, and Development Code Amendment (DCA) 21-005;
4. **Introduce an ordinance** and waive the first reading authorizing execution of Pre-Annexation and Development Agreement (DA) 21-001;
5. **Introduce an ordinance** and waive the first reading authorizing execution of Pre-Annexation and Development Agreement (DA) 23-002; and
6. Adopt a resolution authorizing submittal of an application to LAFCo for a Sphere of Influence and Annexation modification consistent with Annexation and Prezoning (APZ) 21-003.

Staff Report

Attachments:

1. Staff Analysis

2. Planning Commission Staff Report
3. Planning Commission Supplemental Materials
4. Draft Planning Commission Minutes
5. Approximate Site Boundaries Map
6. Proposed Sphere of Influence Amendment Area
7. Proposed Annexation Area
8. SMP 39 Development Plans
9. SMP 40 Development Plans
10. Proposed Trail Connection Options
11. SMP 39-SMP 40 Project Environmental Documents
12. Resolution - CEQA EIR
13. Exhibit A - Planning Commission Resolution CEQA EIR
14. Exhibit B - Final EIR for the SMP 39-SMP 40 Project
15. Exhibit C - Findings Facts in Support of Findings and Statement of Overriding Considerations
16. Exhibit D - Mitigation Monitoring and Report Program for the SMP 39-SMP 40 Project
17. Exhibit E - Response to Comments Memorandum and Erratum
18. Resolution - Project Approval
19. Exhibit A - Planning Commission Resolution - Project Approval
20. Exhibit B - General Plan Amendment (GPA) 21-001
21. Exhibit C - Conditions of Approval
22. Ordinance - APZ,PD,ZMA,DCA
23. Exhibit A - Planning Commission Resolution - Project Approval
24. Exhibit B - Zoning Map Amendment (ZMA) 21-002
25. Exhibit C - Draft Planned Development Zoning
26. Ordinance - SMP 39 Development Agreement
27. Exhibit A - SMP 39 Development Agreement
28. Exhibit B - Planning Commission Resolution - Project Approval
29. Ordinance - SMP 40 Development Agreement
30. Exhibit A - SMP 40 Development Agreement
31. Exhibit B - Planning Commission Resolution - Project Approval
32. Resolution - Application to LAFCo
33. Exhibit A - Annexation Boundary Map - SMP 39
34. Exhibit B - Annexation Boundary Map - SMP 40
35. Exhibit C - SMP 39 - 40 Draft Tax Exchange Agreement

7. MATTERS FOR CONSIDERATION - NONE.

Comments are limited to one comment per person per item regardless of format or time submitted (this includes email and e-comment submissions prior to the meeting as well as live comments during the meeting).

8. COUNCIL COMMITTEE REPORTS AND MATTERS INITIATED BY CITY MANAGER, CITY ATTORNEY, AND COUNCIL MEMBERS

9. ADJOURNMENT

To a Special City Council meeting on April 1, 2024 at 5:00 pm and a Regular City Council meeting on Monday, April 15, 2024 at 7:00 pm, Civic Center Meeting Hall, City Council Chambers, 1016 S. Livermore Avenue.

10. SUPPLEMENTAL MATERIALS

10.1 Supplemental materials received prior to the meeting.

Staff Report
Attachments:
1. Supplemental Materials

10.2 Supplemental materials received at the meeting.
Staff Report
Attachments:
1. Items Received at the Meeting

11. HOW TO PARTICIPATE IN YOUR CITY COUNCIL MEETING

You can participate in the meeting in a number of ways:

Open Forum is an opportunity for the public to speak regarding items not listed on the agenda. Speakers are limited to a maximum of 3 minutes per person. To address the City Council in person, you must submit a speaker card to the City Clerk prior to the start of that item. Please note that the City Council is prohibited by State law from taking action on any items that are not listed on the agenda. However, if your item requires action, the City Council may place it on a future agenda or direct staff to work with you and/or report to the City Council on the issue.

Public Hearings - The topic of the hearing is typically summarized by staff, followed by a presentation by the applicant, and questions from the City Council. The Mayor will then open the hearing to the public and offer an opportunity for public comments. Speakers are limited to a maximum of 3 minutes per person. To address the City Council in person, you must submit a speaker card to the City Clerk prior to the start of the presentation of the item.

Other Agenda Items are also open for public input including Consent Calendar or Matters for Consideration items. These comments are also subject to the 3-minute limit.

Special Meetings, Workshops - The public will have the opportunity to address the City Council regarding the item that is the subject of the special meeting or workshop. Public comments are limited to a maximum of 3 minutes per person.

Platforms to Participate in Meetings:

Submission of Comments Prior to the Meeting:

Email Comments may be submitted by the public to the City Clerk's Office (cityclerk@LivermoreCA.gov). Items received no later than 12:00 pm on the day of the meeting will be provided to the City Council and available on the City website prior to the meeting. These items will NOT be read into the record.

eComments may be submitted by the public using the eComment link here. Comments may

be up to 1000 characters in length and will be accepted up until 4:00 pm the day of the meeting. These items will NOT be read into the record and are viewable by the City Council and the public upon submittal.

Submission of Comments During the Meeting:

Speakers are limited to a maximum of 3 minutes per person. To submit a comment you must complete a speaker card for each item. Speaker cards are available in the Civic Center Meeting Hall lobby. Indicate on the card the item number you wish to comment on and submit the card directly to the City Clerk prior to the start of the item. Please note that the City Council is prohibited by State law from taking action on any items that are not listed on the agenda. However, if your item requires action, the City Council may place it on a future agenda or direct staff to work with you and/or report to the City Council on the issue.

The City will be using YouTube and TV29 as two tools to provide the public access to view City Council meetings. No public comment will be accepted via YouTube.

TV29: tv29live.org Comcast Cable 29

YouTube: http://youtube.com/c/CityofLivermoreCalifornia

If you would like to deliver written materials to the City Council as part of your public comment, please provide 10 copies to the City Clerk with your speaker card.

The **City Council Agenda and Agenda Reports** are prepared by City staff and are available for public review on Tuesday evening, six days prior to the City Council meeting in the Civic Center Library, 1188 South Livermore Avenue, Livermore, and at the City Clerk's Office, 1052 South Livermore Avenue, Livermore. The Agenda is also available on the City's website, http://LivermoreCA.gov/agenda.

Under Government Code §54957.5, any **supplemental material** distributed to the members of the City Council after the posting of this agenda will be available for public review in the City Clerk's Office, 1052 South Livermore Avenue, Livermore, and included in the agenda packet available on the City's web site at http://LivermoreCA.gov/agenda.

PURSUANT TO TITLE II OF THE AMERICANS WITH DISABILITIES ACT (CODIFIED AT 42 UNITED STATES CODE SECTION 12101 AND 28 CODE OF FEDERAL REGULATIONS PART 35), AND SECTION 504 OF THE REHABILITATION ACT OF 1973, THE CITY OF LIVERMORE DOES NOT DISCRIMINATE ON THE BASIS OF RACE, COLOR, RELIGION, NATIONAL ORIGIN, ANCESTRY, SEX, DISABILITY, AGE OR SEXUAL ORIENTATION IN THE PROVISION OF ANY SERVICES, PROGRAMS, OR ACTIVITIES. TO ARRANGE AN ACCOMMODATION IN ORDER TO PARTICIPATE IN THIS PUBLIC MEETING, PLEASE CONTACT THE ADA COORDINATOR AT ADACOORDINATOR@LIVERMORECA.GOV OR CALL (925) 960-4170 (VOICE) OR (925) 960- 4104 (TDD) AT LEAST THREE (3) BUSINESS DAYS IN ADVANCE OF THE MEETING.

LIVERMORE
CALIFORNIA

CITY COUNCIL STAFF REPORT **ITEM NO. 3.1**

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Marianna Marysheva, City Manager

SUBJECT: Confirm Advisory Body appointments to the Airport Commission, the Alameda County Mosquito Abatement District Board of Trustees, Beautification Committee, Commission for the Arts, Historic Preservation Commission, Library Board of Trustees, and City Historian, and direct the City Clerk to administer the oath of office.

RECOMMENDED ACTION

The City Council Subcommittee on Advisory Bodies recommends the City Council confirm the advisory body appointments to the Airport Commission, the Alameda County Mosquito Abatement District Board of Trustees, Beautification Committee, Commission for the Arts, Historic Preservation Commission, and the Library Board of Trustees and direct the City Clerk to administer the oath of office.

The Historic Preservation Commission recommends the City Council appoint Alan Frank as the City Historian.

SUMMARY

On March 6 and 7, 2024, the City Council Subcommittee on Advisory Bodies interviewed applicants for vacancies on the Airport Commission, the Alameda County Mosquito Abatement District Board of Trustees, Beautification Committee, Commission for the Arts, Historic Preservation Commission, Library Board of Trustees, and have submitted their recommendation for City Council consideration and appointment.

On March 7, 2024 the Historic Preservation Commission interviewed applicants for City Historian and recommends Alan Frank for appointment to the position of City Historian.

DISCUSSION

On March 6 and 7, 2024, the City Council Subcommittee on Advisory Bodies interviewed applicants for vacancies on the Airport Commission, the Alameda County Mosquito Abatement District Board of Trustees, Beautification Committee, Commission for the Arts, Historic Preservation Commission, Library Board of Trustees, and recommends confirmation of the following appointments:

Historic Preservation Commission 2 Vacancies

Appointment to a regular term ending May 1, 2028

- Fred Cullum

Appointment to an unexpired and regular term ending May 1, 2028.

- Neal Pann

Alameda County Mosquito Abatement District Board of Trustees 1 Vacancy

Appointment to an unexpired term ending January 1, 2027.

- Maya Manoharan

Commission for the Arts 1 Vacancy

Appointment to an unexpired term ending January 1, 2025

- Thomasin Dewhurst

Livermore Airport Commission 1 Vacancy (Pilot)

Appointment to an unexpired term ending November 1, 2027.

- David Farley

Library Board of Trustees 1 Vacancy

Reappointment to a regular term ending June 1, 2027

- Richard Hunt

Beautification Committee 5 Vacancies

Appointment to regular terms ending June 1, 2028

- Kat Weiss
- Ann Brown

Appointment to an unexpired term ending June 1, 2027

- Andrew Wang

Appointments to unexpired and regular term ending June 1, 2028

- Ron Kraft
- Tom Bradley

On March 7, 2024 the Historic Preservation Commission interviewed applicants for City Historian and recommends confirmation of the following appointment:

City Historian 1 Vacancy

Appointment to an unexpired term ending February 1, 2026

- Alan Frank

Upon the City Council's confirmation of the appointments by motion, the City Clerk will administer the oath of office to new appointees.

FISCAL AND ADMINISTRATIVE IMPACTS

No material fiscal or administrative impacts result from confirmation of these appointments.

COMMUNITY PILLAR

5: A City That Works

GOAL

2: Engage effectively with the City's advisory bodies

ATTACHMENTS

Prepared by: Debbie Elam
Acting City Clerk

Approved by:

Marianna Marysheva
City Manager

Fiscal Review by:

Tina Olson
Administrative Services Director

LIVERMORE
CALIFORNIA

CITY COUNCIL STAFF REPORT **ITEM NO. 3.2**

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Marianna Marysheva, City Manager

SUBJECT: Proclamation declaring March 2024 as March for Meals (#SaveLunch) Month, presented to Carrie Oldes, Spectrum's Meals on Wheels program manager.

RECOMMENDED ACTION

Staff recommends City Council declare March 2024 March for Meals (#SaveLunch) Month.

SUMMARY

DISCUSSION

ATTACHMENTS

1. Proclamation

Prepared by: Stephanie Egidio
Assistant to the City Manager

Approved by:

Marianna Marysheva
City Manager

Fiscal Review by:

Tina Olson
Administrative Services Director

Proclamation

of the

City of Livermore

Declaring

MARCH FOR MEALS (#SAVELUNCH) MONTH

March 2024

WHEREAS, *on March 22, 1972, President Richard Nixon amended the Older Americans Act of 1965, establishing a national nutrition program for seniors 60 years and older; and*

WHEREAS, *twenty-two years ago, Meals on Wheels America initiated the March for Meals (#SaveLunch) campaign to recognize and raise awareness about the escalating problem of senior hunger in America; and*

WHEREAS, *in partnership with Stanford Health Care Tri-Valley, the Spectrum Community Services' Meals on Wheels Program in Livermore has served the community admirably for over 30 years, delivering over 34,047 nutritious meals to more than 250 homebound seniors last year. Stanford Health Care Tri-Valley's menu is a model for Meals on Wheels programs nationwide, meeting the specialized dietary requirements of older adults in Livermore; and*

WHEREAS, *the dedicated volunteers of the Spectrum Community Services' Meals on Wheels Program, have served over 1,500 hours each year in Livermore, and are the backbone of the program, providing not only nutritious meals but also caring concern and attention to seniors and individuals with disabilities at significant risk of hunger and isolation; and*

WHEREAS, *the Spectrum Community Services' Meals on Wheels Program helps seniors maintain health and independence, preventing unnecessary falls, hospitalizations, and premature institutionalization; and provides a powerful socialization opportunity for millions of Livermore seniors, combating the negative health effects and economic consequences of loneliness and isolation;*

NOW, THEREFORE, *the City Council of the City of Livermore proclaims March 2024 as the 22nd Annual March for Meals (#SaveLunch) Month and urges residents to take this month to volunteer, donate and honor the Meals on Wheels programs, the seniors they serve and the volunteers who care for them. Furthermore, the City Council thanks staff and volunteers with Spectrum Community Services in their efforts to combat senior hunger and isolation in Livermore and the Tri-Valley community.*

Mayor John Marchand

Vice Mayor Robert W. Carling

Council Member Ben Barrientos

Council Member Evan Branning

Council Member Brittni Kiick

CORPORATE SEAL OF THE CITY OF LIVERMORE, CA.

LIVERMORE
CALIFORNIA

CITY COUNCIL STAFF REPORT **ITEM NO. 5.1**

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Marianna Marysheva, City Manager

SUBJECT: Approval of draft minutes - March 11, 2024 Regular Meeting.

RECOMMENDED ACTION

Staff recommends the City Council approve the draft minutes.

SUMMARY

DISCUSSION

ATTACHMENTS

1. DRAFT 2024-03-11

Prepared by: Debbie Elam
Acting City Clerk

Approved by:

Marianna Marysheva
City Manager

Fiscal Review by:

Tina Olson
Administrative Services Director

LIVERMORE
CALIFORNIA

CITY COUNCIL
MARCH 11, 2024

REGULAR MEETING

2. CALL TO ORDER – The meeting of the City Council was called to order by Mayor John Marchand at 7:00 pm, held in person at 1016 S. Livermore Avenue and YouTube.

ROLL CALL – Present: Mayor John Marchand, Vice Mayor Robert W. Carling, and Council Members, Ben Barrientos, Evan Branning and, Brittni Kiick.

PLEDGE OF ALLEGIANCE

3. PROCLAMATIONS AND PRESENTATIONS

3.1 Commission for the Arts annual update presented by Chair Cathleen deOrnelas.

Chair Cathleen deOrnelas presented the Commission for the Arts annual update.

3.2 Proclamation declaring March 2024 American Red Cross Month, presented to Kane Wong and Zel Helstrom, volunteers from the American Red Cross Alameda County Disaster Program.

Mayor Marchand presented a proclamation to Tim Allen and Zel Helstrom, volunteers from the American Red Cross Alameda County Disaster Program declaring March 2024 American Red Cross Month.

4. OPEN FORUM

Mayor Marchand opened the public comment period.

David McGuigan, provided a comment.

Shirley Lewandowski, provided a comment.

Greg Scott, provided a comment.

Doug Mann, provided a comment.

Michele Howard, provided a comment.

There were no more speakers, and the public comment period was closed.

5. CONSENT CALENDAR

Items 5.1 and 5.2 were removed from the Consent Calendar for separate action.

Mayor Marchand opened the public comment period.

Item 5.7 Greg Scott, provided a comment.

There were no more speakers, and the public comment period was closed.

ON THE MOTION OF COUNCIL MEMBER BRANNING, SECONDED BY COUNCIL MEMBER BARRIENTOS, AND CARRIED ON A 4-0 VOTE. THE CITY COUNCIL APPROVED CONSENT CALENDAR ITEM 5.1. MAYOR MARCHAND ABSTAINED DUE TO HIS ABSENCE AT THE MEETING OF FEBRUARY 12, 2024.

ON THE MOTION OF COUNCIL MEMBER BRANNING, SECONDED BY COUNCIL MEMBER BARRIENTOS, AND CARRIED ON A 4-0 VOTE. THE CITY COUNCIL APPROVED CONSENT CALENDAR ITEM 5.2. COUNCIL MEMBER KIICK ABSTAINED DUE TO HER ABSENCE AT THE MEETING OF FEBRUARY 26, 2024.

ON THE MOTION OF COUNCIL MEMBER BRANNING, SECONDED BY COUNCIL MEMBER KIICK AND CARRIED ON A 5-0 VOTE, THE CITY COUNCIL APPROVED CONSENT CALENDAR ITEMS 5.3 - 5.9

5.1 Reapproval of draft minutes - February 12, 2024, Regular Meeting.

5.2 Approval of draft minutes - February 26, 2024, Regular Meeting.

5.3 Adoption of Ordinance 2154 amending Livermore Municipal Code (LMC) Chapter 5.50 Tobacco Retailer Licensing.

5.4 Resolution 2024-028 authorizing execution of the third amendment to the agreement between the City of Livermore and Alameda County accepting grant funding from the County of Alameda, Probation Department for mental health services provided by Horizons Family Counseling, for the term of January 1, 2024 through June 30, 2024, with a total amount not-to-exceed $381,300.

5.5 Resolution 2024-029 authorizing the acceptance for permanent maintenance, release of the security bonds, and execution of a Notice of Completion for the 2020 Multi Use Trail Repair Project 2018-20.

5.6 Resolution 2024-030 declaring parcels within the City which contain weeds, refuse, rubbish, and/or dirt a public nuisance requiring abatement, directing staff to proceed with the annual Fire Hazard Abatement Program, and set a public

hearing date of April 15, 2024, to receive protests and direct staff to proceed with field abatement work.

5.7 Resolution 2024-031 of continued local emergency in response to impacts from a series of severe storm events last year.

5.8 Resolution 2024-032 authorizing he adoption of the January 2024 Tri-Valley Local Hazard Mitigation Plan update.

5.9 Resolution 2024-033 adopting a Sponsorship Policy establishing criteria and process for acceptance of sponsorships.

6. PUBLIC HEARINGS

6.1 Hearing to consider a resolution approving the first substantial amendment to the City of Livermore's U.S. Department of Housing and Urban Development Fiscal Year 2023-24 Action Plan, authorizing the City Manager to negotiate and execute any related documents, and approving a supplemental appropriation in the amount of $76,000 of Community Development Block Grant funds.

Recommendation: Staff recommended the City Council adopt a resolution:

1. Approving the first substantial amendment to the City's FY 2023-24 Annual Action Plan;
2. Authorizing the City Manager, or her designee, to negotiate and execute any documentation, agreements, and amended agreements with the U.S Department of Housing and Urban Development and Tri-Valley Haven for Women that are necessary and appropriate to carry out the purpose and intent of this resolution and effectuate the First Substantial Amendment to the City's FY 2023-24 Annual Action Plan;
3. Approving a supplemental appropriation in the amount of $76,000 from the Community Development Block Grant Fund (Fund 613); and
4. Authorizing City Manager, or her designee, to take whatever actions are necessary and appropriate to carry out the purpose and intent of this resolution, including approving minor changes to the First Substantial Amendment to the City's FY 2023-24 Annual Action Plan.

Management Analyst, Amy Walker presented the staff report.

Mayor Marchand opened the public hearing.

Greg Scott, provided a comment.

There were no more speakers, and the hearing was closed.

ON THE MOTION OF COUNCIL MEMBER BRANNING, SECONDED BY COUNCIL MEMBER KIICK AND CARRIED ON A 5-0 VOTE, THE CITY COUNCIL ADOPTED THE FOLLOWING RESOLUTION:

Resolution 2024-034 approving the first substantial amendment to the City of Livermore's U.S. Department of Housing and Urban Development Fiscal Year 2023-24 Action Plan; authorizing the City Manager to negotiate and execute all related documents; and approving a supplemental appropriation of $76,000 from the Community Development Block Grant Fund.

7. MATTERS FOR CONSIDERATION - NONE

8. COUNCIL COMMITTEE REPORTS AND MATTERS INITIATED BY CITY MANAGER, CITY ATTORNEY, STAFF AND COUNCIL MEMBERS

THE MAYOR AND CITY COUNCIL MEMBERS PROVIDED A SUMMARY OF RECENTLY ATTENDED EVENTS AND MEETINGS IN ADDITION TO THE INFORMATION PROVIDED IN THE SUPPLEMENTAL PACKET. COUNCIL MEMBERS WHO DID NOT PROVIDE A SUMMARY IN THE SUPPLEMENTAL PACKET ARE INCLUDED BELOW.

Arukah House, Council Member Carling noted his attendance at the fundraiser on March 10, 2024.

9. ADJOURNMENT – at 8:08 pm to a Special City Council Meeting on Monday, March 18, 2024 and a Regular City Council Meeting on Monday, March 25, 2024 at 7:00 pm, Civic Center Meeting Hall, City Council Chambers, 1016 S. Livermore Avenue.

APPROVED: _____
JOHN P. MARCHAND, MAYOR

ATTEST: _____
DEBORAH L. ELAM, ACTING CITY CLERK

LIVERMORE
CALIFORNIA

CITY COUNCIL STAFF REPORT **ITEM NO. 5.2**

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Judy Erlandson, Acting Public Works Director

SUBJECT: Resolution authorizing the execution of an agreement with Roofing Constructors, Inc. dba Western Roofing Services, a subsidiary of TectaAmerica to provide annual and semi-annual roof inspections, preventative maintenance, gutter cleaning and roof repair services for City owned buildings in an amount not-to-exceed $700,000 for a three-year term ending March 31, 2027.

RECOMMENDED ACTION

Staff recommends the City Council adopt a resolution authorizing the execution of a three-year agreement with Roofing Constructors, Inc. dba Western Roofing Services, a subsidiary of TectaAmerica to provide annual and semi-annual roof inspections, preventative maintenance, gutter cleaning and roof repair services for City owned buildings in an amount not-to-exceed $700,000 for a three-year term ending March 31, 2027.

SUMMARY

The City currently uses a roofing company to provide inspection and on-call repair services for all City-owned buildings. In order to ensure that the roofs of all City-owned buildings continue to be maintained properly, staff recommends entering into an agreement with Roofing Constructors, Inc. dba Western Roofing Services, a subsidiary of TectaAmerica (Western Roofing) for these services.

DISCUSSION

The current agreement with Western Roofing to perform roofing services has expired. A new agreement is required to provide annual and semi-annual roof inspections, preventative maintenance services, gutter cleaning, roof on-call repair services and emergency leak services for roofs of all City-owned buildings.

Western Roofing holds a National Cooperative Purchasing Alliance (now OMNIA Partners) agreement # 02-75. Livermore Municipal Code Section 2.68.370 permits the formal bidding procedure for supplies, equipment, and general services to be dispensed with when purchased through a cooperative purchasing arrangement.

In such cases, the supplies and services subject to the agreement or program and the underlying purchase must have been made using a quotation or bid procedure at least as restrictive as the City's procedure. The City is a member of OMNIA Partners and this cooperative purchasing process meets the requirements of the Livermore Municipal Code.

FISCAL AND ADMINISTRATIVE IMPACTS

The total not-to-exceed cost for this three-year agreement is $700,000 which is currently budgeted in a variety of operating funds including various short keys in the General Fund, Airport, and Water funds.

COMMUNITY PILLAR

5: A City That Works

GOAL

14: Develop and maintain the City's infrastructure, facilities, and property

ATTACHMENTS

1. TectaAmerica Proposal
2. TectaAmerica Award Letter
3. TectaAmerica 5th Year Renewal Letter 2024
4. Resolution
5. Exhibit A - Agreement

Prepared by: Marisa Gan
Acting Public Works Manager

Approved by:

Marianna Marysheva
City Manager

Fiscal Review by:

Tina Olson
Administrative Services Director

Request for Proposal (RFP)
National Cooperative Purchasing Alliance
ESC – Region 14

PROPOSAL

Job Order Contracting (JOC) Services
RFP #28-19

ATTENTION:
Region 14 Education Service Center
Attn: Matthew Mackel
1850 Highway 351
Abilene, TX 79601

SUBMITTED BY:

Tecta America Corp
Andy Carr, National Cooperative Contracts Manager
acarr@tectaamerica.com

9450 Bryn Mawr, Suite 500
Rosemont, IL 60018
P: 708-451-0743

Due Date: Tuesday, November 19, 2019
2:00 pm CST

Tab 1 – Master Agreement
General Terms and Conditions

- Customer Support
  - The vendor shall provide timely and accurate technical advice and sales support. The vendor shall respond to such requests within one (1) working day after receipt of the request.

- Disclosures
  - Respondent affirms that he/she has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor or service to a public servant in connection with this contract.
  - The respondent affirms that, to the best of his/her knowledge, the offer has been arrived at independently, and is submitted without collusion with anyone to obtain information or gain any favoritism that would in any way limit competition or give an unfair advantage over other vendors in the award of this contract.

- Renewal of Contract
  - Unless otherwise stated, all contracts are for a period of four (4) years with an option to renew annually for an additional three (3) years if agreed to by Region 14 ESC and the vendor.

- Funding Out Clause
  - Any/all contracts exceeding one (1) year shall include a standard "funding out" clause. A contract for the acquisition, including lease, of real or personal property is a commitment of the entity's current revenue only, provided the contract contains either or both of the following provisions:
  - Retains to the entity the continuing right to terminate the contract at the expiration of each budget period during the term of the contract and is conditioned on a best efforts attempt by the entity to obtain appropriate funds for payment of the contract.

- Shipments (if applicable)
  - The awarded vendor shall ship ordered products within the written estimate of delivery time by the vendor to the entity after the receipt of the order unless modified. If a product cannot be shipped within that time, the awarded vendor shall notify the entity placing the order as to why the product has not shipped and shall provide an estimated shipping date. At this point the participating entity may cancel the order if estimated shipping time is not acceptable. All deliveries shall be freight prepaid, F.O.B. destination.

- Tax Exempt Status
  - Since this is a national contract, knowing the tax laws in each state is the sole responsibility of the vendor.

- Payments
  - The entity using the contract will make payments directly to the awarded vendor or their affiliates as long as written request and approval by NCPA is provided to the awarded vendor.

- Adding authorized distributors/dealers
  - Awarded vendors may submit a list of distributors/partners/resellers to sell under their contract throughout the life of the contract. Vendor must receive written approval from NCPA before such distributors/partners/resellers considered authorized.
  - Purchase orders and payment can only be made to awarded vendor or distributors/business partners/resellers previously approved by NCPA.
  - Pricing provided to members by added distributors or dealers must also be less than or equal to the pricing offered by the awarded contract holder.
  - All distributors/partners/resellers are required to abide by the Terms and Conditions of the vendor's agreement with NCPA.

- Pricing
  - <u>All pricing submitted to shall include, as a cost of sale to the awarded vendor, the administrative fee to be remitted to NCPA by the awarded vendor.</u> It is the awarded vendor's responsibility to keep all pricing up to date and on file with NCPA. For those pricing requiring annual or periodic pricing updates, awarded vendors are expected to provide these changes as submitted.
  - All deliveries shall be freight prepaid, F.O.B. destination and shall be included in all pricing offered unless otherwise clearly stated in writing

- Warranty
  - Proposals should address each of the following:
    - Applicable warranty and/or guarantees of equipment and installations including any conditions and response time for repair and/or replacement of any components during the warranty period.
    - Availability of replacement parts
    - Life expectancy of equipment under normal use
    - Detailed information as to proposed return policy on all equipment
  - All supplies, equipment and services shall include manufacturer's minimum standard warranty and one (1) year labor warranty unless otherwise agreed to in writing.

- Administrative Fee
  - All pricing submitted to Region 14 ESC shall include the administrative fee to be remitted to NCPA by the awarded vendor.
  - The awarded vendor agrees to pay administrative fees to NCPA of **three percent (3%)**.

- Audit rights
  - Vendor shall, at Vendor's sole expense, maintain appropriate due diligence of all purchases made by any entity that utilizes this Agreement. NCPA and Region 14 ESC each reserve the right to audit the accounting for a period of three (3) years from the time such purchases are made. This audit right shall survive termination of this Agreement for a period of one (1) year from the effective date of termination. In the State of New Jersey, this audit right shall survive termination of this Agreement for a period of five (5) years from the date of final payment. Such records shall be made available to the New Jersey Office of the State Comptroller upon request.
  - Region 14 ESC shall have the authority to conduct random audits of Vendor's pricing that is offered to eligible entities at Region 14 ESC's sole cost and expense. Notwithstanding the foregoing, in the event that Region 14 ESC is made aware of any pricing being offered to eligible agencies that is materially inconsistent with the pricing under this agreement, Region 4 ESC shall have the ability to conduct an extensive audit of Vendor's pricing at Vendor's sole cost and expense. Region 14 ESC may conduct the audit internally or may engage a third-party auditing firm. In the event of an audit, the requested materials shall be provided in the format and at the location designated by Region 14 ESC or NCPA.

- Indemnity
  - The awarded vendor shall protect, indemnify, and hold harmless Region 14 ESC and its participants, administrators, employees and agents against all claims, damages, losses and expenses arising out of or resulting from the actions of the vendor, vendor employees or vendor subcontractors in the preparation of the solicitation and the later execution of the contract.

- Licenses and Duty to keep current licenses
  - Vendor shall maintain in current status all federal, state and local licenses, bonds and permits required for the operation of the business conducted by vendor. Vendor shall remain fully informed of and in compliance with all ordinances and regulations pertaining to the lawful provision of services under the contract. Region 14 ESC reserves the right to stop work and/or cancel the contract of any vendor whose license(s) expire, lapse, are suspended or terminated. Vendor is expected to provide all required license(s) with this RFP response.

- Franchise Tax
  - The respondent hereby certifies that he/she is not currently delinquent in the payment of any franchise taxes.

- Supplemental Agreements
  - The entity participating in this contract and awarded vendor may enter into a separate supplemental agreement to further define the level of service requirements over and above the minimum defined in this contract i.e. invoice requirements, ordering requirements, specialized delivery, etc. Any supplemental agreement developed as a result of this contract is exclusively between the participating entity and awarded vendor.

- Certificates of Insurance
  - Certificates of insurance shall be delivered to the Public Agency prior to commencement of work. The insurance company shall be licensed in the applicable state in which work is

being conducted. The awarded vendor shall give the participating entity a minimum of ten (10) days notice prior to any modifications or cancellation of policies. The awarded vendor shall require all subcontractors performing any work to maintain coverage as specified.

- Legal Obligations
  - It is the Respondent's responsibility to be aware of and comply with all local, state, and federal laws governing the sale of products/services identified in this RFP and any awarded contract and shall comply with all while fulfilling the RFP. Applicable laws and regulation must be followed even if not specifically identified herein.
- Protest
  - A protest of an award or proposed award must be filed in writing within ten (10) days from the date of the official award notification and must be received by 5:00 pm CST. No protest shall lie for a claim that the selected Vendor is not a responsible Bidder. Protests shall be filed with Region 14 ESC and shall include the following:
    - Name, address and telephone number of protester
    - Original signature of protester or its representative
    - Identification of the solicitation by RFP number
    - Detailed statement of legal and factual grounds including copies of relevant documents and the form of relief requested
  - Any protest review and action shall be considered final with no further formalities being considered.
- Force Majeure
  - If by reason of Force Majeure, either party hereto shall be rendered unable wholly or in part to carry out its obligations under this Agreement then such party shall give notice and full particulars of Force Majeure in writing to the other party within a reasonable time after occurrence of the event or cause relied upon, and the obligation of the party giving such notice, so far as it is affected by such Force Majeure, shall be suspended during the continuance of the inability then claimed, except as hereinafter provided, but for no longer period, and such party shall endeavor to remove or overcome such inability with all reasonable dispatch.
  - The term Force Majeure as employed herein, shall mean acts of God, strikes, lockouts, or other industrial disturbances, act of public enemy, orders of any kind of government of the United States or any civil or military authority; insurrections; riots; epidemics; landslides; lighting; earthquake; fires; hurricanes; storms; floods; washouts; droughts; arrests; restraint of government and people; civil disturbances; explosions, breakage or accidents to machinery, pipelines or canals, or other causes not reasonably within the control of the party claiming such inability. It is understood and agreed that the settlement of strikes and lockouts shall be entirely within the discretion of the party having the difficulty, and that the above requirement that any Force Majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes and lockouts by acceding to the

demands of the opposing party or parties when such settlement is unfavorable in the judgment of the party having the difficulty

- Prevailing Wage
  - It shall be the responsibility of the Vendor to comply, when applicable, with the prevailing wage legislation in effect in the jurisdiction of the purchaser. It shall further be the responsibility of the Vendor to monitor the prevailing wage rates as established by the appropriate department of labor for any increase in rates during the term of this contract and adjust wage rates accordingly.

- Miscellaneous
  - Either party may cancel this contract in whole or in part by providing written notice. The cancellation will take effect 30 business days after the other party receives the notice of cancellation. After the 30th business day all work will cease following completion of final purchase order.

- Cancellation for Non-Performance or Contractor Deficiency
  - Region 14 ESC may terminate any contract if awarded vendor has not used the contract, or if purchase volume is determined to be low volume in any 12-month period.
  - Region 14 ESC reserves the right to cancel the whole or any part of this contract due to failure by contractor to carry out any obligation, term or condition of the contract.
  - Region 14 ESC may issue a written deficiency notice to contractor for acting or failing to act in any of the following:
    - Providing material that does not meet the specifications of the contract;
    - Providing work and/or material that was not awarded under the contract;
    - Failing to adequately perform the services set forth in the scope of work and specifications;
    - Failing to complete required work or furnish required materials within a reasonable amount of time;
    - Failing to make progress in performance of the contract and/or giving Region 14 ESC reason to believe that contractor will not or cannot perform the requirements of the contract;
  - Upon receipt of a written deficiency notice, contractor shall have ten (10) days to provide a satisfactory response to Region 14 ESC. Failure to adequately address all issues of concern may result in contract cancellation. Upon cancellation under this paragraph, all goods, materials, work, documents, data and reports prepared by contractor under the contract shall become the property of Region 14 ESC on demand.

- Open Records Policy
  - Because Region 14 ESC is a governmental entity responses submitted are subject to release as public information after contracts are executed. If a vendor believes that its response, or parts of its response, may be exempted from disclosure, the vendor must specify page-by-page and line-by-line the parts of the response, which it believes, are exempt. In addition, the respondent must specify which exception(s) are applicable and provide detailed reasons to substantiate the exception(s).
  - The determination of whether information is confidential and not subject to disclosure is the duty of the Office of Attorney General (OAG). Region 14 ESC must provide the OAG sufficient information to render an opinion and therefore, vague and general claims to confidentiality by the respondent are not acceptable. Region 14 ESC must comply with the

opinions of the OAG. Region14 ESC assumes no responsibility for asserting legal arguments on behalf of any vendor. Respondent are advised to consult with their legal counsel concerning disclosure issues resulting from this procurement process and to take precautions to safeguard trade secrets and other proprietary information.

If awarded vendor is going to do business in the State of Arizona, the following terms and conditions shall apply

- Cancellation for Conflict of Interest

  - Per A.R.S. 38-511 a School District/public entity may cancel this Contract within three (3) years after Contract execution without penalty or further obligation if any person significantly involved in initiating, negotiating, securing, drafting, or creating the Contract on behalf of the School District/public entity is, or becomes at any time while the Contract or an extension the Contract is in effect, an employee of or a consultant to any other party to this Contract with respect to the subject matter of the Contract. The cancellation shall be effective when the awarded vendor receives written notice of the cancellation unless the notice specifies a later time.

- Registered Sex Offender Restriction

  - Pursuant to this order, the awarded vendor agrees by acceptance of this order that no employee of the awarded vendor or a subcontractor of the awarded vendor, who has been adjudicated to be a registered sex offender, will perform work on any School District's premises or equipment at any time when District students are, or are reasonably expected to be, present. The awarded vendor further agrees by acceptance of this order that a violation of this condition shall be considered a material breach and may result in a cancellation of the order at the District's discretion.

- Contract's Employment Eligibility

  - By entering the contract, awarded vendor warrants compliance with A.R.S. 41-4401, A.R.S. 23-214, the Federal Immigration and Nationality Act (FINA), and all other federal immigration laws and regulations. A School District/public entity may request verification of compliance from any contractor or subcontractor performing work under this contract. A School District/public entity reserves the right to confirm compliance in accordance with applicable laws. Should the School District/public entity suspect or find that the awarded vendor or any of its subcontractors are not in compliance, the School District/public entity may pursue any and all remedies allowed by law, including, but not limited to: suspension of work, termination of the contract for default, and suspension and/or debarment of the awarded vendor. All costs necessary to verify compliance are the responsibility of the award vendor.

- Terrorism Country Divestments

  - Per A.R.S. 35-392, a School District/public entity is prohibited from purchasing from a company that is in violation of the Export Administration Act.

- Fingerprint Checks

  - If required to provide services on School District/public entity's property, awarded vendor shall comply with A.R.S. 15-511(h).

- Indemnification

  - Notwithstanding all other provisions of this agreement, School District/public entity does not agree to accept responsibility, waive liability, or indemnify the awarded vendor, in whole or in part, for the errors, negligence, hazards, liabilities, contract breach and/or omissions of the awarded vendor, its employees and/or agents.

Process

Region 14 ESC will evaluate proposals in accordance with, and subject to, the relevant statutes, ordinances, rules, and regulations that govern its procurement practices. NCPA will assist Region 14 ESC in evaluating proposals. Award(s) will be made to the prospective vendor(s) whose response is determined to be the most advantageous to Region 14 ESC, NCPA, and its participating agencies. To qualify for evaluation, response must have been submitted on time, and satisfy all mandatory requirements identified in this document.

- Contract Administration
  - The contract will be administered by Region 14 ESC. The National Program will be administered by NCPA on behalf of Region 14 ESC.
- Contract Term
  - The contract term will be for four (4) years starting from the date of the award. The contract may be renewed for up to three (3) additional one-year terms or any combination of time equally not more than 3 years.
  - It should be noted that maintenance/service agreements may be issued for up to (5) years under this contract even if the contract only lasts for the initial term of the contract. NCPA will monitor any maintenance agreements for the term of the agreement provided they are signed prior to the termination or expiration of this contract.
- Contract Waiver
  - Any waiver of any provision of this contract shall be in writing and shall be signed by the duly authorized agent of Region 14 ESC. The waiver by either party of any term or condition of this contract shall not be deemed to constitute waiver thereof nor a waiver of any further or additional right that such party may hold under this contract.
- Products and Services additions
  - Products and Services may be added to the resulting contract during the term of the contract by written amendment, to the extent that those products and services are within the scope of this RFP and has written approval of NCPA and Region 14ESC.
- Competitive Range
  - It may be necessary for Region 14 ESC to establish a competitive range. Responses not in the competitive range are unacceptable and do not receive further award consideration.
- Deviations and Exceptions
  - Deviations or exceptions stipulated in response may result in disqualification. It is the intent of Region 14 ESC to award a vendor's complete line of products and/or services, when possible.
- Estimated Quantities
  - The estimated dollar volume of Products and Services purchased under the proposed Master Agreement is 20 million dollars annually. This estimate is based on the anticipated volume of Region 14 ESC and current sales within the NCPA program. There is no guarantee or commitment of any kind regarding usage of any contracts resulting from this solicitation

- Evaluation
  - Region 14 ESC will review and evaluate all responses in accordance with, and subject to, the relevant statutes, ordinances, rules and regulations that govern its procurement practices. NCPA will assist the lead agency in evaluating proposals. Recommendations for contract awards will be based on multiple factors, each factor being assigned a point value based on its importance.
- Formation of Contract
  - A response to this solicitation is an offer to contract with Region 14 ESC based upon the terms, conditions, scope of work, and specifications contained in this request. A solicitation does not become a contract until it is accepted by Region 14 ESC. The prospective vendor must submit a signed Signature Form with the response thus, eliminating the need for a formal signing process.
- NCPA Administrative Agreement
  - The vendor will be required to enter and execute the National Cooperative Purchasing Alliance Administration Agreement with NCPA upon award with Region 14 ESC. The agreement establishes the requirements of the vendor with respect to a nationwide contract effort.
- Clarifications / Discussions
  - Region 14 ESC may request additional information or clarification from any of the respondents after review of the proposals received for the sole purpose of elimination minor irregularities, informalities, or apparent clerical mistakes in the proposal. Clarification does not give respondent an opportunity to revise or modify its proposal, except to the extent that correction of apparent clerical mistakes results in a revision. After the initial receipt of proposals, Region 14 ESC reserves the right to conduct discussions with those respondent's whose proposals are determined to be reasonably susceptible of being selected for award. Discussions occur when oral or written communications between Region 14 ESC and respondents are conducted for the purpose clarifications involving information essential for determining the acceptability of a proposal or that provides respondent an opportunity to revise or modify its proposal. Region 14 ESC will not assist respondent bring its proposal up to the level of other proposals through discussions. Region 14 ESC will not indicate to respondent a cost or price that it must meet to neither obtain further consideration nor will it provide any information about other respondents' proposals or prices.
- Multiple Awards
  - Multiple Contracts may be awarded as a result of the solicitation. Multiple Awards will ensure that any ensuing contracts fulfill current and future requirements of the diverse and large number of participating public agencies.
- Past Performance
  - Past performance is relevant information regarding a vendor's actions under previously awarded contracts; including the administrative aspects of performance; the vendor's history of reasonable and cooperative behavior and commitment to customer satisfaction; and generally, the vendor's businesslike concern for the interests of the customer.

Evaluation Criteria

- Product & Services/Pricing (40 points)
  - Respondent(s)' products and services (e.g.; quality and breadth of product(s)/service(s), description(s) quality, reputation in the marketplace, average on time delivery rate and historical shipping timelines, return and restocking policies and applicable fees, average Fill Rate, shipping charges and other)
  - Competitive Level of Pricing for vendor's available products and services
  - Warranties on Respondent(s)' products and services (e.g.; availability of standard/extended warranties, pricing, detailed descriptions, ease of process and others)
  - Evidence of the ability of Respondent(s)' products and services to save members time and money (e.g.; breadth of service departments, technological advances, personnel experience, product(s) efficiencies, and others)
  - Other factors relevant to this section as submitted by the responder(s)

- Ability to Provide and Perform the Required Services for the Contract (25 points)
  - Response to emergency orders & service (e.g.; response time, breadth of service coverage, strength of meeting service and warranty needs of members)
  - Customer service/problem resolution (e.g.; technical abilities of service personnel; quality of processes,)
  - Invoicing process (e.g.; ease of use; transparency, billing resolutions)
  - Respondent(s)' processes, and quality of organizational structure
  - Contract implementation/Customer transition
  - Financial condition of vendor
  - Offeror's safety record (e.g.; benchmarks, lost hours, reporting)
  - Instructional materials and training (e.g.; administrative documentation, internal technical training, training of agencies)
  - Other factors relevant to this section as submitted by the proposer

- References (10 points)
  - A minimum of ten (10) customer references for product and/or services of similar scope dating within past 3 years

- Qualification and Experience (15 points)
  - Respondent(s)' reputation in the marketplace
  - Past relationship with Region 14 ESC and/or NCPA members
  - Experience with cooperative selling (e.g.; number of other cooperatives, Exhibited understanding of cooperative purchasing)
  - Experience and qualification of key employees
  - Location and number of sales persons who will work on this contract
  - Marketing plan and capability
  - Past experience working with the government sector

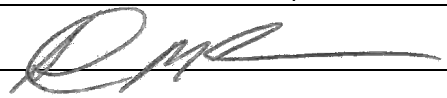
- Past litigation, bankruptcy, reorganization, state investigations of entity or current officers and directors
- Completeness of response (e.g.; filled out all sections, answered all questions, provided pricing)
- Other factors relevant to this section as submitted by the proposer

- Value Added Services Description, Products and/or Services (10 points)
  - Marketing and agency Training
  - Customer Service
  - Sales force training (e.g.; internal training plan, corporate officer involvement, orientation commitment)
  - Marketing plan and capability (e.g.; contract rollout plan, benchmarks, goals)
  - Green initiative(s) (e.g.; philosophy, certificates, awards)
  - Quality and breadth of value add(s)
  - Other factors relevant to this section as submitted by the proposer

Signature Form

The undersigned hereby proposes and agrees to furnish goods and/or services in strict compliance with the terms, specifications and conditions at the prices proposed within response unless noted in writing. The undersigned further certifies that he/she is an officer of the company and has authority to negotiate and bind the company named below and has not prepared this bid in collusion with any other Respondent and that the contents of this proposal as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any person engaged in this type of business prior to the official opening of this proposal.

Prices are guaranteed: **120 days**

Company name	Tecta America Corp
Address	9450 W. Bryn Mawr, Suite 500
City/State/Zip	Rosemont, IL 60018
Telephone No.	708-451-0743
Fax No.	847-581-3880
Email address	acarr@tectaamerica.com
Printed name	Andy Carr
Position with company	National JOC/Cooperative Contracts Manager
Authorized signature	

Tab 2 – NCPA Administration Agreement

This Administration Agreement is made as of __ December 6, 2019 ____, by and between National Cooperative Purchasing Alliance ("NCPA") and Tecta America Corp _____ ("Vendor").

Recitals

WHEREAS, Region 14 ESC has entered into a certain Master Agreement dated _December 6, 2019, referenced as Contract Number _ 02-75 ___, by and between Region 14 ESC and Vendor, as may be amended from time to time in accordance with the terms thereof (the "Master Agreement"), for the purchase of Roofing Products and Services;

WHEREAS, said Master Agreement provides that any state, city, special district, local government, school district, private K-12 school, technical or vocational school, higher education institution, other government agency or nonprofit organization (hereinafter referred to as "public agency" or collectively, "public agencies") may purchase products and services at the prices indicated in the Master Agreement;

WHEREAS, NCPA has the administrative and legal capacity to administer purchases under the Master Agreement to public agencies;

WHEREAS, NCPA serves as the administrative agent for Region 14 ESC in connection with other master agreements offered by NCPA

WHEREAS, Region 14 ESC desires NCPA to proceed with administration of the Master Agreement;

WHEREAS, NCPA and Vendor desire to enter into this Agreement to make available the Master Agreement to public agencies on a national basis;

NOW, THEREFORE, in consideration of the payments to be made hereunder and the mutual covenants contained in this Agreement, NCPA and Vendor hereby agree as follows:

- General Terms and Conditions
  - The Master Agreement, attached hereto as Tab 1 and incorporated herein by reference as though fully set forth herein, and the terms and conditions contained therein shall apply to this Agreement except as expressly changed or modified by this Agreement.
  - NCPA shall be afforded all of the rights, privileges and indemnifications afforded to Region 14 ESC under the Master Agreement, and such rights, privileges and indemnifications shall accrue and apply with equal effect to NCPA under this Agreement including, but not limited to, the Vendor's obligation to provide appropriate insurance and certain indemnifications to Region 14 ESC.
  - Vendor shall perform all duties, responsibilities and obligations required under the Master Agreement in the time and manner specified by the Master Agreement.
  - NCPA shall perform all of its duties, responsibilities, and obligations as administrator of purchases under the Master Agreement as set forth herein, and Vendor acknowledges that NCPA shall act in the capacity of administrator of purchases under the Master Agreement.
  - With respect to any purchases made by Region 14 ESC or any Public Agency pursuant to the Master Agreement, NCPA (a) shall not be construed as a dealer, re-marketer, representative, partner, or agent of any type of Vendor, Region 14 ESC, or such Public Agency, (b) shall not be obligated, liable or responsible (i) for any orders made by Region

14 ESC, any Public Agency or any employee of Region 14 ESC or Public Agency under the Master Agreement, or (ii) for any payments required to be made with respect to such order, and (c) shall not be obligated, liable or responsible for any failure by the Public Agency to (i) comply with procedures or requirements of applicable law, or (ii) obtain the due authorization and approval necessary to purchase under the Master Agreement. NCPA makes no representations or guaranties with respect to any minimum purchases required to be made by Region 14 ESC, any Public Agency, or any employee of Region 14 ESC or Public Agency under this Agreement or the Master Agreement.

- The Public Agency participating in the NCPA contract and Vendor may enter into a separate supplemental agreement to further define the level of service requirements over and above the minimum defined in this contract i.e. invoice requirements, ordering requirements, specialized delivery, etc. Any supplemental agreement developed as a result of this contract is exclusively between the Public Agency and Vendor. NCPA, its agents, members and employees shall not be made party to any claim for breach of such agreement.

- Term of Agreement
  - This Agreement shall be in effect so long as the Master Agreement remains in effect, provided, however, that the obligation to pay all amounts owed by Vendor to NCPA through the termination of this Agreement and all indemnifications afforded by Vendor to NCPA shall survive the term of this Agreement.

- Fees and Reporting
  - The awarded vendor shall electronically provide NCPA with a detailed monthly or quarterly report showing the dollar volume of all sales under the contract for the previous month or quarter. Reports shall be sent via e-mail to NCPA offices at reporting@ncpa.us. Reports are due on the fifteenth (15th) day after the close of the previous month or quarter. It is the responsibility of the awarded vendor to collect and compile all sales under the contract from participating members and submit one (1) report. The report shall include at least the following information as listed in the example below:

Agency Name	Zip Code	State	RQN Proposal #	Order Date	Internal PO, Job #, FX#, Notes etc.	Sale Amount	Admin Fee (3%)
						Total	_

  - Each month or quarter NCPA will invoice the vendor based on the total of sale amount(s) reported. From the invoice the vendor shall pay to NCPA the administrative fee on the amount of the agency's purchase order less any applicable sales tax and Performance and/or Payment bond cost. Deadline for term of payment will be included in the invoice NCPA provides.
  - Supplier shall maintain an accounting of all purchases made by Public Agencies under the Master Agreement. NCPA and Region 14 ESC reserve the right to audit the accounting for a period of four (4) years from the date NCPA receives the accounting. In the event of such an audit, the requested materials shall be provided at the location designated by Region 14 ESC or NCPA. In the event such audit reveals an underreporting of Contract Sales and a resulting underpayment of administrative fees, Vendor shall promptly pay NCPA the amount of such underpayment, together with interest on such amount and shall be obligated to reimburse NCPA's costs and expenses for such audit.

- General Provisions
  - This Agreement supersedes any and all other agreements, either oral or in writing, between the parties hereto with respect to the subject matter hereof, and no other agreement, statement, or promise relating to the subject matter of this Agreement which is not contained herein shall be valid or binding.
  - Awarded vendor agrees to allow NCPA to use their name and logo within website, marketing materials and advertisement. Any use of NCPA name and logo or any form of publicity regarding this contract by awarded vendor must have prior approval from NCPA.
  - If any action at law or in equity is brought to enforce or interpret the provisions of this Agreement or to recover any administrative fee and accrued interest, the prevailing party shall be entitled to reasonable attorney's fees and costs in addition to any other relief to which such party may be entitled.
  - Neither this Agreement nor any rights or obligations hereunder shall be assignable by Vendor without prior written consent of NCPA, provided, however, that the Vendor may, without such written consent, assign this Agreement and its rights and delegate its obligations hereunder in connection with the transfer or sale of all or substantially all of its assets or business related to this Agreement, or in the event of its merger, consolidation, change in control or similar transaction. Any permitted assignee shall assume all assigned obligations of its assignor under this Agreement.
  - This Agreement and NCPA's rights and obligations hereunder may be assigned at NCPA's sole discretion, to an existing or newly established legal entity that has the authority and capacity to perform NCPA's obligations hereunder
  - All written communications given hereunder shall be delivered to the addresses as set forth below.

National Cooperative Purchasing Alliance:		**Vendor:**	Tecta America Corp
Name:	Matthew Mackel	Name:	Andy Carr
Title:	Director, Business Development	Title:	Nat'l JOC/COOP Contr Mgr
Address:	PO Box 701273	Address:	9450 W. Bryn Mawr, Suite 500
	Houston, TX 77270		Rosemont, IL
Signature:		Signature:	
Date:	December 6, 2019	Date:	11/15/19

NCPA Registered Vendor Quotation Number

RFP responders are requested to agree to a quotation number registration program to provide consistency and faster service for our facility awarded vendors, agency members and participants. The process will require Facility Contract holders to register and receive a NCPA Vendor Registered Quotation Number that must be prominently displayed on each proposal(s) that you present to the agencies. The system will track Facility transactions from the initial proposal stage to the completion of each project. NCPA has assembled an experienced Facilities Management Team that stands ready and willing to assist its vendors in providing quality services to the awarded vendor's organization. Failure to receive the Vendor Registered Quotation Number can result in potential delays to your services and the only acceptable proposals need to have a NCPA Vendor Registered Quotation Number.

NCPA Registered Vendor Quotation Number Process

Fill out the form on the Facilities page at www.NCPA.us

***Click on RQN Logo at the bottom of the home page and a form will pop up.**
*** Fill out and submit.**

- All registered vendor quotation number requests must be submitted *and* a proposal number received *before* you present it to your potential customer.
- You will have a response with a NCPA Vendor Registered Quotation Number within 5 minutes.
- Include the quotation number on all proposals.

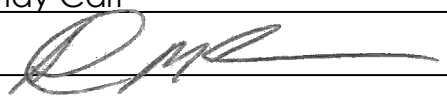
This document acknowledges that you have received and agree to the details, directions and expectations of the NCPA Vendor Registered Quotation Number process.

Date: 11/15/19

RFP Number: 28-19

Company Name: Tecta America Corp

Printed Name: Andy Carr

Signature: 

Tab 3 – Vendor Questionnaire

Please provide responses to the following questions that address your company's operations, organization, structure, and processes for providing products and services.

- States Covered
  - Bidder must indicate any and all states where products and services can be offered.
  - Please indicate the price co-efficient for each state if it varies.

☒ **50 States & District of Columbia** (Selecting this box is equal to checking all boxes below)

☐ Alabama	☐ Maryland	☐ South Carolina
☐ Alaska	☐ Massachusetts	☐ South Dakota
☐ Arizona	☐ Michigan	☐ Tennessee
☐ Arkansas	☐ Minnesota	☐ Texas
☐ California	☐ Mississippi	☐ Utah
☐ Colorado	☐ Missouri	☐ Vermont
☐ Connecticut	☐ Montana	☐ Virginia
☐ Delaware	☐ Nebraska	☐ Washington
☐ District of Columbia	☐ Nevada	☐ West Virginia
☐ Florida	☐ New Hampshire	☐ Wisconsin
☐ Georgia	☐ New Jersey	☐ Wyoming
☐ Hawaii	☐ New Mexico	
☐ Idaho	☐ New York	
☐ Illinois	☐ North Carolina	
☐ Indiana	☐ North Dakota	
☐ Iowa	☐ Ohio	
☐ Kansas	☐ Oklahoma	
☐ Kentucky	☐ Oregon	
☐ Louisiana	☐ Pennsylvania	
☐ Maine	☐ Rhode Island	

☒ **All US Territories and Outlying Areas** (Selecting this box is equal to checking all boxes below)

- ☐ American Samoa
- ☐ Federated States of Micronesia
- ☐ Guam
- ☐ Midway Islands
- ☐ Northern Marina Islands
- ☐ Puerto Rico
- ☐ U.S. Virgin Islands

- Minority and Women Business Enterprise (MWBE) and (HUB) Participation
  - It is the policy of some entities participating in NCPA to involve minority and women business enterprises (MWBE) and historically underutilized businesses (HUB) in the purchase of goods and services. Respondents shall indicate below whether or not they are an M/WBE or HUB certified.
    - Minority / Women Business Enterprise
      - Respondent Certifies that this firm is a M/WBE ☐
    - Historically Underutilized Business
      - Respondent Certifies that this firm is a HUB ☐
- Residency
  - Responding Company's principal place of business is in the city of Rosemont, State of IL
- Felony Conviction Notice
  - Please Check Applicable Box;
    - ☐ A publically held corporation; therefore, this reporting requirement is not applicable.
    - ☒ Is not owned or operated by anyone who has been convicted of a felony.
    - ☐ Is owned or operated by the following individual(s) who has/have been convicted of a felony
  - If the 3rd box is checked, a detailed explanation of the names and convictions must be attached.
- Distribution Channel
  - Which best describes your company's position in the distribution channel:
    - ☐ Manufacturer Direct
    - ☒ Authorized Distributor
    - ☒ Value-added reseller
    - ☐ Certified education/government reseller
    - ☒ Manufacturer marketing through reseller
    - ☒ Other: Service Provider
- Processing Information
  - Provide company contact information for the following:
    - Sales Reports / Accounts Payable

      Contact Person: Andy Carr
      Title: National JOC/Cooperative Contracts Manager
      Company: Tecta America Corp
      Address: 9450 W. Bryn Mawr, Suite 500
      City: Rosemont State: IL Zip: 60018
      Phone: 708-451-0743 Email: acarr@tectaamerica.com

- Purchase Orders

  Contact Person: Andy Carr
  Title: National JOC/Cooperative Contracts Manager
  Company: Tecta America Corp
  Address: 9450 W. Bryn Mawr, Suite 500
  City: Rosemont State: IL Zip: 60018
  Phone: 708-451-0743 Email: acarr@tectaamerica.com

- Sales and Marketing

  Contact Person: Andy Carr
  Title: National JOC/Cooperative Contracts Manager
  Company: Tecta America Corp
  Address: 9450 W. Bryn Mawr, Suite 500
  City: Rosemont State: IL Zip: 60018
  Phone: 708-451-0743 Email: acarr@tectaamerica.com

- Pricing Information
  - In addition to the current typical unit pricing furnished herein, the Vendor agrees to offer all future product introductions at prices that are proportionate to Contract Pricing.
    - If answer is no, attach a statement detailing how pricing for NCPA participants would be calculated for future product introductions.

    ☒ Yes ☐ No
  - Pricing submitted includes the required NCPA administrative fee. The NCPA fee is calculated based on the invoice price to the customer.

    ☐ Yes ☒ No
  - Vendor will provide additional discounts for purchase of a guaranteed quantity.

    ☒ Yes ☐ No

TECTA AMERICA

Tab 4 –Vendor Profile

Includes Tab 8 Value Added Products and Services

Tecta America Corp

Tecta America Corp was founded in 2000. Tecta has grown to be a national leader in the roofing industry. Our manpower consists of over 3,500 employees with 74 local operating units located throughout the U.S. that average 60+ years of business. We have experience in every roof system and certified by every major manufacturer.

D&B Number 12583-7471

Corporate Office Address: 9450 W. Bryn Mawr, Suite 500, Rosemont, IL 60018

Total Employees: 3500

Direct Sales – 83

Sales Support – 12

Service Technicians – 312

Engineering Support – 26

Administration – 126

Field Technicians – 2820

Misc / Other – 200+

PROGRAM MANAGERs

Andy Carr, National Cooperative Accounts Manager, 708-451-0743, acarr@tectaamerica.com (Contact for sales, sales support, marketing, financial reporting)

Jim Phillips, Director Federal & National Operations, 410-905-3669, jphillips@tectaamerica.com (Executive support)

TECTA LOCATIONS

Operating Units:

Tecta Location	Address	City	State	Zip Code	President/GM
Tecta America Southeast, LLC	952 Alton Parkway	Birmingham	AL	35210	Jim Holt
Tecta America Arizona, LLC	1824 Broadway Rd	Phoenix	AZ	85041	Chuck Chapman
Tecta America Sacramento, Inc.	3257 Fitzgerald Rd.	Rancho Cordova	CA	95742	Michael McClain
Tecta America Southern California, Inc.	1217 E. Wakeham Ave.	Santa Ana	CA	92705	Rex Souders

TECTA AMERICA

Tecta Location	Address	City	State	Zip Code	President/GM
Western Roofing Service, a Tecta America Commercial Roofin	15002 Wicks Blvd.	San Leandro	CA	94577	Mark Bledsoe
Tecta America Colorado, LLC	1881 West 13th. Ave.	Denver	CO	80204	John Cook
Tecta America New England, LLC	105 Cherry St	East Hartford	CT	06108	John Donavan
Tecta America Southeast, LLC	588 Monroe Rd	Sanford	FL	32771	Michael Winant
Tecta America Southeast, LLC	530 Ellis Rd. South	Jacksonville	FL	32554	Bill Gibbs
Tecta America West Florida, LLC	6809 N. Nebraska Ave.	Tampa	FL	33604	Norm Kirkpatrick
Tecta America South Florida, Inc.	1431 SW 30th Ave.	Deerfield Beach	FL	33442	Tim Eberly
Tecta America South Florida, Inc.	1333 NW 155th Dr	Miami Gardens	FL	33169	Tim Eberly
Tecta America West Florida, Naples Commercial Rfg.	1045 Collier Center Way Ste. 9	Naples	FL	34110	Norm Kirkpatrick
Tecta America Southeast, LLC	5085 Shiloh Rd	Cummings	GA	30040	Chris Pinkston
Metalcrafts, A Tecta America Company, LLC	4522 Ogeechee Rd	Savannah	GA	31405	Allen Lancaster
Anthony Roofing, a Tecta America Company	2555 White Oak Circle	Aurora	IL	60502	Dan Brown
Tecta America Illinois Roofing, LLC	4813 Kingston Drive	Lisle	IL	60532	Mike Ward
National Office (headquarters)	9450 W. Bryn Mawr, Suite 500	Rosemont	IL	60018	Mark Santacrose
Fort Wayne Roofing, a Tecta America Company	4320 Ardmore Ave.	Fort Wayne	IN	46802	Sean Motter
Blackmore & Buckner Roofing, a Tecta America Company	1504 Sadlier Circle South Drive	Indianapolis	IN	46239	Steve Buckner
CE Reeve, A Tecta America Company, LLC	5421 W. 84th St	Indianapolis	IN	46268	Brian Klepinger
Schwickert's Tecta America of Mankato, LLC	1841 E 1450 Rd	Lawrence	KS	66044	Scott Gilbert
Bri-Den Roofing, a Tecta America Company	459 29th Street	Ashland	KY	41101	Brian Morrison
Bri-Den Roofing, a Tecta America Company	110 Old Wallaceton Road	Berea	KY	40403	Brian Morrieon
Tecta America Kentucky	4045 McCollum Court	Louisville	KY	40218	Pat Dorsey
Roof Systems of Maine (RSM)	332 Target Industrial Circle	Bangor	ME	04401	Lee Corro
Tecta America New England, LLC	1093 Riverside St	Portland	ME	04103	Scott Leeman
Tecta America East, LLC	5220 Pennington Ave.	Baltimore	MD	21226	Steve Coyne
Tecta America East, LLC	302 S. Division St.	Fruitland	MD	21826	Glen Wood
Tecta America East, LLC	7340 Montevideo Rd.	Jessup	MD	20794	Paul Dubics
Tecta America New England, LLC	285 Circuit St	Hanover	MA	02339	Peter Owens
Tecta America New England, LLC	2 Sterling Rd.	North Billerica	MA	01862	Peter Owens
Schwickert's Tecta America of Mankato, LLC	221 Minnesota St.	Mankato	MN	56002	Kevin Palmer
Schwickert's Tecta America of Mankato, LLC	204 Schumann Dr	Stewartville	MN	55976	Kevin Palmer
Schwickert's Tecta America of Minneapolis, LLC	5420 Hwy 169	Savage	MN	55428	Kevin Palmer

TECTA AMERICA

Tecta Location	Address	City	State	Zip Code	President/GM
Tecta Customer Solutions Center (TSC)	600 Riverfront, Suite 200	Mankato	MN	56001	Lindy Ryan
Roofing Services(RSS), a Tecta America Company	1835 Old Highway 40	East Columbia	MO	65202	Joe Laubreth
Roofing Services(RSS), Tecta America Company	1054 Central Industrial Drive	St. Louis	MO	63110	Joe Laubreth
The Melanson Company, a Tecta America Company, LLC	5 Ferry Road	Bow	NH	03304	Bob Hardy
The Melanson Company, a Tecta America Company, LLC	353 West Street, PO Box 523	Keene	NH	03431	Rob Therrien
ACM Excel	5716 Harding Hwy, Ste 100	Mays Landing	NJ	08330	Geoff Berns
Chris Andersen Roofing, a Tecta America Company	95 New Brunswick Ave.	Hopelawn	NJ	08861	Nabil Elmachtoub
J.P. Patti Tecta America, LLC	365 Jefferson St.	Saddle Brook	NJ	07663	Jim Wisse
Tecta America Metro New York, LLC	38 Roosevelt Ave.	Belleville	NJ	07109	Dave Romansky
Weatherguard Tecta America, LLC	2880 Curry Rd.	Schenectady	NY	12303	Michael Bisner
Tecta America Carolinas, LLC	13615 E. Independence Blvd.	Indian Trail	NC	28079	Randy Winecoff
Tecta America Dakotas, LLC	2315 7th Ave. North	Fargo	ND	58102	Brent Wical
Tecta America Dakotas, LLC	1810 N 6th St	Grand Forks	ND	58203	Brent Wical
Tecta America Dakotas, LLC	701 4th Ave NE	Minot	ND	58701	Brent Wical
Tecta America Dakotas, LLC	1017 17th St NE	Bismarck (Mandan)	ND	58554	Brent Wical
Tecta America Dakotas, LLC	314 5th St SE	Devils lake	ND	58301	Brent Wical
Tecta America Dakotas Commercial Roofing	105 7th Ave. SE	Jamestown	ND	58401	Brent Wical
Tecta America Zero Company LLC	6225 Wiehe Rd.	Cincinnati	OH	45237	Jon Wolf
Tecta America Zero Company, LLC	2300 Edwin C. Moses Blvd, Ste 1	Dayton	OH	45417	Jon Wolf
Tecta America Zero Company, LLC	1230 Goodale Blvd.	Columbus	OH	43212	Josh Beer
JB Roofing, A Tecta America Company	1480 S County Rd 594	Tiffin	OH	44883	Rylee Miller
JB Roofing, A Tecta America Company	8185 Suite V and W	Columbus	OH	43035	Rylee Miller
Tecta America Oklahoma LLC (Exterior Solutions)	3143 N. 32nd St	Muskogee	OK	74401	Craig Wilson
ABC Roofing, a Tecta America Company	10123 SE Brittany Ct.	Clackamas	OR	97015	Greg Bolt
Tecta America East, LLC	342 Commerce Dr.	Glen Rock	PA	17327	Chis Mummert
Tecta America East, LLC Architectural Metals	342 Commerce Dr.	Glen Rock	PA	17327	Brian McClelland
Wolfe Roofing, A Tecta America Co.	3907 Pottsville Pike	Reading	PA	19612	Jeff Koller
Tecta America Carolinas, LLC	4048 Ashley Phosphate Rd	North Charleston	SC	29420	Fred Perron
ARS, a Tecta America Commercial Roofing Company	1010 S. Commerce Ave. PO Box	Sioux Falls	SD	57101	Jon Ziebarth
CEI Roofing Texas, LLC	2510 Cockrell Ave.	Dallas	TX	75215	Jim Renard
Tecta America Amarillo CS, LLC	2214 S. Lincoln	Amarillo	TX	79109	Tracy Honea
Tecta America CS, LLC	5401 Acuff Rd.	Lubbock	TX	79403	Jason Weems

TECTA AMERICA

Tecta Location	Address	City	State	Zip Code	President/GM
Tecta America Austin	2319 Patterson Dr	Pflugerville (Austin)	TX	78660	Russell Johnson
Roof Services, a Tecta America Company	2621 Cogbill Road	Richmond	VA	23234	Joe Zieni
Roof Services, a Tecta America Company	3056 Holland Road	Virginia Beach	VA	23453	Danny Snell
Vermont Roofing, a Tecta America Company	1325 Harwood Hill PO Box 1535	Bennington	VT	05201	Neil Hoag
Vermont Roofing, a Tecta America Company	118 Spruce Street	Rutland	VT	05701	Roger Louiselle
AC Hathorne, a Tecta America Commercial Roofing Company	252 Avenue C Griswold Industira	Williston	VT	05495	Dave Hartwell
Tecta America Seattle, LLC	9500 Aurora Ave., North	Seattle	WA	98103	Kevin Grinaker
F.J.A. Christiansen Roofing Co., Inc., a Tecta America Comme	2101 W. Purdue St.	Milwaukee	WI	53209	Rob McNamara
Commercial Roofing, a Tecta America Company, LLC.	2300 Maple Drive	Plover	WI	54467	Shawn Herzog

TECTA AMERICA

CONTRACT TERMS

Net 30 Days

Market Competition:

ABADAK, INC. RESEDA ,CA
ABSOLUTE STORAGE, LLC TEMPE ,AZ
AD VERITAS CONSTRUCTION CO. INC. TOPEKA ,KS
ADVANCED ROOFING, INC. FORT LAUDERDALE ,FL
ALLIANCE ROOFING LLC GLASTONBURY ,CT
ALLIED BUILDING PRODUCTS CORP. EAST RUTHERFORD ,NJ
AMC CAPITAL CONSTRUCTORS, INC. APOPKA ,FL
AMERICAN CLASSIC CONSTRUCTION INC. CHATSWORTH ,CA
BEST CONTRACTING SERVICES, INC. GARDENA ,CA
BLUESCOPE CONSTRUCTION, INC. KANSAS CITY ,MO
BOLLINGER ROOFING COMPANY, INC. BALTIMORE ,MD
BOSNICK ROOFING, INC. TACOMA ,WA
BURTIN POLYMER LABORATORIES, INC. CARTERSVILLE ,GA
CENTURION INDUSTRIES, INC. GARRETT ,IN
CLADDING SYSTEMS, INC. TAMPA ,FL
COMPLETE PACKAGING & SHIPPING SUPPLIES Inc. FREEPORT ,NY
DKG & ASSOCIATES, INC. ALBUQUERQUE ,NM
DURO-LAST, INC. SAGINAW ,MI
EDL CONSTRUCTION, INC. HENDERSON ,NV
ENFIELD ENTERPRISES, INC. SPRINGFIELD ,MA
ENTERPRISE ROOFING & SHEET METAL CO. DAYTON ,OH
EURAMAX INTERNATIONAL, INC. NORCROSS ,GA
EXBON DEVELOPMENT, INC. GARDEN GROVE ,CA
FLEX MEMBRANE INTERNATIONAL CORP. LEESPORT ,PA
GANAHL LUMBER COMPANY ANAHEIM ,CA
GARLAND COMPANY INC, THE CLEVELAND ,OH
IB ROOF SYSTEMS, INC. EUGENE ,OR
INSTANT ASPHALT INC GILROY ,CA
INSULATING COATINGS CORP. INVERNESS ,FL
INTERNATIONAL AUTOMATED SYSTEMS, INC. MINNEAPOLIS ,MN
JEFF EUBANK ROOFING COMPANY, INC. FORT WORTH ,TX
K-CON, INC. NORTH CHARLESTON ,SC
L.D. TEBBEN COMPANY, INC. AUSTIN ,TX
LIVEROOF, LLC NUNICA ,MI
MBTECHNOLOGY FRESNO ,CA
MENTOR GROUP TROY ,MI
NATIONAL BUILDING CONTRACTORS , INC. CONYERS ,GA
NORTHEAST CONSTRUCTION, INC. RICHMOND ,VA
NUGENERATION TECHNOLOGIES, LLC EMERYVILLE ,CA
PACIFIC TECH CONSTRUCTION, INC. KELSO ,WA
PROGRESSIVE SERVICES, INC. PHOENIX ,AZ
QUEST CONSTRUCTION PRODUCTS, LLC CHARLESTON ,SC
R&B ROOFING LLC GARLAND ,TX
R.M. WAITE CO., LLC OAKLAND ,CA
ROOFING RESOURCES INC CHADDS FORD ,PA
ROTH BROS., INC. YOUNGSTOWN ,OH
SHAW LUMBER CO. SUMTER ,SC
SILKTOWN ROOFING, INCORPORATED MANCHESTER ,CT
SIMON ROOFING AND SHEET METAL CORP. YOUNGSTOWN ,OH
TECTA AMERICA CORP. ROSEMONT ,IL
TEXAS LIQUA TECH SERVICES, INC. HOUSTON ,TX
TEXAS REFINERY CORP FORT WORTH ,TX
TREMCO INCORPORATED BEACHWOOD ,OH
U.S. PLY, INC. FORT WORTH ,TX
VAST ENTERPRISES, LLC MINNEAPOLIS ,MN
WALTER PARKER COMPANY, LLC, THE ALBUQUERQUE ,NM
WEATHERPROOFING SERVICES L.L.C. CROSSROADS ,TX
WEST ROOFING SYSTEMS, INC. LAGRANGE ,OH
WESTON SOLUTIONS, INC. ALBUQUERQUE ,NM
WHELAN PROPERTIES, LLC CHADDS FORD ,PA

Tecta's sales programs employ more than 80 people throughout the country who are involved on educating clients in the market place about Cooperative Purchasing.

We are the largest commercial roofing contractor in the U.S. We are certified with all major manufacturers for all major roof system types. We operate in all 50 states and all U.S. territories, and can service 90% of the country's population within 4 hours.

Quality is assured and maintained throughout each project through the implementation of a Quality Control Plan (QCP), which establishes the responsibilities and administrative methods our team will use to ensure client satisfaction. The QCP will outline the desired results (preparation phase), perform work that meets these standards (implementation phase), and regularly monitor work performance to secure results (follow-up phase). Each individual team member is responsible for

checking his or her own work, which is continually monitored by the Quality Control Manager (QCM). We understand that the monetary and scheduling costs involved in "re-work" situations can add up quickly, so we proactively build quality into each step of the design and construction process. In addition, our QCM makes random, unscheduled inspections of project sites. This extra check helps reinforce proper work procedures by enabling our QC staff to view work in progress, without prior notice. The results of these unannounced inspections are recorded and properly attended to. The goal of the QCP is to prevent problems, or at worst to catch problems before they become costly to the bottom line. For Jordon Construction, Quality Control is not simply a check at the end of a project, it is a culture that is maintained throughout the contract.

Tecta America works closely with manufacturers and distributors to identify changes in products and materials that result in reduced costs. Tecta has instituted a rebate program with all major manufacturers to incentivize manufacturers' involvement with Tecta to ensure price changes are followed as they happen.

Tecta's service program is the largest in the nation due to the quality we provide.

Tecta will provide all the necessary marketing material to inform and educate our clients and NCPA members.

Tecta receives a request from the client, an estimate is developed, it is then audited by the NCPA and then issued to the client for approval. Once the client accepts the the proposal and issues a PO, Then the material is ordered and scheduled for delivery to the client.

Tecta offers a 2 year guarantee on installation and honors all manufacturer warranties.

Tecta employs Quality Assurance personnel who work with all operating units and project managers to ensure that all workmanship and material meet the requirements of the client's specified order.

Tecta offers can offer an extension to the 2 year guarantee on installation depending on the work required and the material ordered. This can be reviewed on a case by case basis.

Tecta's proprietary systems and programs in place track more than 60,000 service and installations a year.

We offer services in all 50 states, US territories and Canada.

Tecta provides 24 hour emergency service with the ability to service 90% of the US population within 4 hours of initial request. No other roofing company comes close.

Tecta's service technicians are always amongst our most experienced employees. They are experts in all the necessary processes and procedures to assist in any client's needs.

It is mandatory that all service work is followed by a supervisor's evaluation with the customer and the service team.

Tecta's service program is the largest in the nation due to the quality we provide

Tecta utilizes all the industry standard project tracking tools and software available to the industry, i.e. Primavera, Microsoft Projects, etc.

Tecta has provided the necessary logos and will update the NCPA with all new marketing material regularly.

Tecta will continue to be diligent about monthly sales reporting as required.

CULTURE & PROCESS

Today's roofing systems are advanced and complex; yet despite this complexity, many common roofing issues can arise. Typical concerns include leaking, premature failure, and unexpected expenses. As well, potential downtime related to roof problems, and lost inventory or interior damage, can negatively influence the building's occupants. It is important for you to partner with a professional roofing contractor that understands your specific business needs. Tecta America Corp has worked with many organizations like the National Cooperative Purchasing Alliance and we empathize with the roofing challenges that affect your operation. Below are several of the issues that you said are most important to the NCPA entities.

Correcting Existing Problems
Whatever the original cause, it is important to address existing problems before the same mistakes are made again and contribute to the failure of the new roofing system. Some of the more typical existing roofing problems include:

- Condensation
- Ponding
- Structural Defects
- Membrane Failure
- Improper Detailing
- Improper Insulation Values
- Inappropriate Material Selection

Handling Complex Logistical Solutions
The National Cooperative Purchasing Alliance knows that good value is a negotiated solution that provides the optimum results at the best available price and that the process of negotiation requires working with established and trustworthy partners. The key to obtaining cost-effective results is:

- Contractors who are able to provide full technical services
- A broad range of possible roofing systems
- Organizational strength, knowledge and experience to perform the work
- Backed up with warranties and on-going maintenance programs
- National network of Tecta contractors.

TECTA AMERICA

Plans for a Roofing Management Program

Lengthening the service life of your physical assets is crucial to your bottom line results. Proper management is the key to success. Whether a roofing management program is initiated from day one or at some later point in the life of a facility, it requires:

- Planning
- Prevention
- Communication

Preventing Disruption of Business

A leaking or damaged roof can have a serious impact on operations, ranging from bad public relations to financial losses, including:

- Tenant Complaints and Legal Actions
- Customer Dissatisfaction
- Line Shutdown
- Product Contamination - Inventory Damage
- Just-in-Time Breakdown
- Equipment Damage
- Employee Work Stoppage

Avoiding Safety Problems

Protecting customers, employees, tenants and visitors can complicate a roofing system project.

- Accident & Injury Prevention
- Customers/Clients and Personnel
- Building and Products
- Records and Insurance
- Publicity and Public Relations
- Security Issues
- Costs of Not Being Safe

GOALS AND OBJECTIVES FOR YOUR ROOFING PROGRAM

Your roofing program is an investment; and Tecta America Corp's primary responsibility is to help you maximize that investment. The first step in that process is to understand your core objectives. Different customers, at different times, have changing objectives related to their roofing system. These goals range from budgeting and expense control—to leak prevention, interior protection, and extending the life of the roof. Below are several of the key goals we believe the NCPA wants to achieve with your roofing program.

24/7/365

The roof over your head is our main concern. We express that concern by structuring our service and support to be available 24 hours a day, 7 days a week, 365 days a year, just the same way your roofing systems must support and protect your operations. The requirements of roofing never take a day off and neither do we. We are here to serve you, so we can be there when you need us.

TECTA AMERICA

Ensure Confidence in Your Roofing Documentation
With a portfolio of roofing assets to manage and track, it is important that you have confidence in the timeliness and accuracy of your repair documentation. By working with Tecta America, you will know exactly what repair and maintenance services you receive and will be able to clearly understand your invoice and allocate costs appropriately.

Total Roofing Management Solutions
You want a formalized set of time-tested procedures, customized to the requirements of your own roofing systems, combined with preventative programs, emergency response and patch-and-repair programs… plus inspection and analysis, budgeting, planning and forecasting, energy surveys, and life-cycle costing. In other words, you want it all.
And that is what we deliver. These procedures combined with the history of Tecta, our financial stability, our extensive insurance coverage and our success in focusing on establishing and maintaining long-term relationships, make our Tecta Care and Tecta Plan Roofing Management® programs more than a symbol of excellence in roofing management. You can take it to the bank.

Fast Response, Full Service
We maintain rapid-response teams to handle problems related to weather, accidents or other emergencies. As part of Tecta, we can call upon the resources of the all the other Tecta roofing organizations nation-wide should the need arise.

Workers with Security Clearance
Because most government buildings are secure sites, it is important for contractors doing business with the GSA to have a proven process for clearing employees for access to federal facilities. You need a contractor who understands the screening requirements and knows how to properly complete and process all required background and clearance documentation.

RECOMMENDATIONS FOR THE NCPA

TECTA AMERICA'S SOLUTIONS DESIGNED TO ADDRESS YOUR NEEDS

Every day, the entities served by the NCPA deal with the challenges and concerns directly associated with its core business. Dealing with their roof is not, and should not be one of them. To ensure a successful roofing program, you need to rely on your trusted business partner to provide a combination of products and services that best suit your needs. You expect them to lend experience, give advice, and offer guidance on the best approaches to meet your needs. You also require a partner that will be there if something goes wrong; and that has the experience and sense of urgency to resolve issues that arise.

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Production Roofing

Our roofing solutions are designed to ensure you get the right roof system for your facility and business needs; installed on time and on budget. Your roof is one of the largest facility expenses you must budget for—and it affects the success your operation. Tecta America's roofing solutions give you the peace-of-mind knowing that your roof system is installed with quality workmanship and safety at the forefront. Because we work with all manufacturers and all roof systems, we can help the NCPA understand the alternatives and make the best decisions for your ownership goals. In addition, our years of experience and financial stability give you the assurance that we will do the job right, and be around for the long-term to provide ongoing support and maintenance and honor your roof system warranties.

Roof Asset Management

Our roof asset management solution will give the NCPA access to accurate and real-time information in order to properly manage, maintain, and budget the roofing systems at your multiple facilities. Unique tracking and monitoring tools, combined with relevant metrics and costing information, allow you to better forecast your roofing expenses and extend roof life through proper maintenance.
Beginning with a comprehensive audit of your roof assets, we collect and analyze pertinent data. We rate the current condition of each roof in your portfolio and estimate remaining service life. All your important roofing information will be readily accessible: capital and expense forecasts, warranty documents, roof drawings, photos, and more. Armed with this complete collection of interdependent information, your roof planning and budgeting will be accurate—and easy.

TectaPlan – Computerized Maintenance Management for Your Roofing Portfolio

When managing multiple roofs, you need to be confident that your roofing program will perform and deliver. TectaPlan is the best resource for managing all your long-term roofing needs easily, consistently, accurately and securely. Powered by TectaTracker, this roof asset management program provides the roof condition reports and forecast data you need to avoid potential problems, helping you manage your roof assets efficiently and cost-effectively. We estimate the remaining service life of your roof through an inspection of ten critical benchmarks including membrane condition, flashing, leakage, drainage condition, roof age, present repair status, insulation condition, rooftop traffic, interior occupancy and an overall assessment.

TectaTracker includes:
Detailed Documentation
All of your critical information in one place, including drawings, photos, warranties, proposals, historical information and other documents for quick, secure access. An invaluable resource for large portfolio managers.

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Roof Assessor
Roof Assessor provides you with an objective assessment of the roof condition and estimated remaining service life. TectaTracker's consistent rating systems help you evaluate overall roof performance.

Reports
Create customized reports on one or multiple properties in your online portfolio to meet your specific needs, and get detailed information on your roof system and roof condition.

Financial Planner
Get a better handle on budgeting. Financial Planner provides a 10-year forecast and condition-based estimate of anticipated maintenance and repair costs. In addition to budgeting operating costs, track capital expenses and perform a deferred analysis on any or all roofs in your portfolio.

How TectaTracker works:
Tecta America trained technicians gather any roof history you may have, as well as warrantee documents. They evaluate current roof conditions and develop repair recommendations based on a thorough inspection. Photos are taken of any areas of concern and to document any repair work accomplished. Information is then uploaded to the TectaTracker website for you to review and use as needed. On a predetermined schedule, repeat TectaCare Planned Maintenance inspections will be performed. Updates to your roof conditions and repair recommendations will be made and documented in TectaTracker, accessible to you for review. Over the long view, TectaTracker will provide a positive return on investment by helping you make maintenance decisions that will prolong the life of your roof, ensuring that your roof remains free of deficiencies and your budget is free of surprises.

TectaTracker Roof Audit and Report
You will have access to TectaTracker, a proprietary web-based platform that stores information on roof systems across a portfolio of buildings. Developed in conjunction with a leading Roof Consultant, it includes information such as roof system, warranties, age of roof, photos, repair history and, critically, includes a financial forecast of expected repair costs. It is invaluable for budgeting roof repair and maintenance as well as long-term capital planning and is designed to give real estate managers at all levels the critical roofing information needed to make decisions, prepare budgets and identify problems before they happen.

A Roof Audit will be performed as the first inspection for each location. It will include:
- Roof Inspection: a visual survey of the exterior condition of each building's roof and roof related sheet metal. The visual survey also includes deterioration or damage we may observe to metal wall panels, brick wall dividers, and parapets. These items will be brought to the owner's attention for further action. The Roof Inspection does not include items such as structural damage or deterioration occurring below the observable roof membrane.
- The initial audit of a facility also includes the gathering and data input of the following detailed information:

o CAD drawing with projections obtained from initial roof inspection
o Photos of the exterior of the building, roof, defects, and roof related details
o Roof system information including deck, insulation, membrane, surfacing, past history, and other information
o Core cuts as needed to obtain or verify roof system information
o Warranty Information and confirmation
o Roof Assessor –a proprietary tool which estimates a roof's remaining useful life based on critical factors and offers a consistent analysis from roof to roof
o Prioritized roof repairs and maintenance items
o Long term budget

Tecta will provide you and your designated staff a password and access to the Tecta Tracker website so that you can review the details on each of your Projects or designated portfolio of Projects on demand. During the term of this agreement and any subsequent amendments or extensions, Tecta America will update and maintain all roof related data in the Tecta Tracker system.

Report
A detailed Tecta Tracker report can be prepared on-demand by you for each facility covering, among other things, roof condition, defect photos, Roof Assessor Points and a summary of all recommended service repairs required to bring the roofing system to a maintainable condition including cost associated with such repairs. Finally a Five Year Forecast will be provided, updated and reviewed annually to anticipate and budget capital and expense items. This report will be available in the on-line TectaTracker program.

Some key features of the report are:
- Building and Roof Information: Includes information such as roof system, warranties, drawings and more
- Defect and Repair History: Includes defect photos and recommended repairs
- Roof Assessor: a quantitative assessment of the roof system and its expected remaining useful life. Factors such as membrane condition, flashings, penetrations, and roof traffic impact the calculations
- Five Year Forecast: the detailed forecast of the cost and timing of service repairs needed, the annual preventive maintenance and the timing of roof replacements

Tecta Response

Many Types of Extreme Weather Events
Every year, extreme weather events attack buildings, and especially roofs, in a variety of ways. From, hurricane force storms that hit our coast lines to tornado and straight line wind events, hail storms, snow storms, and severe weather storms with high levels of rainfall. These extreme weather events cause havoc for facility managers, with loss of power, deck deflection, collapse, and building damage, water intrusion, interior contents damage and more.

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Local roofing contractors are frequently overwhelmed serving their customer base, requiring days and weeks just to get a contractor to look at a property. A pre-storm plan that relies on a strong national provider with strong resources relationships and the ability to prevent further damage and return your facility to normal as quickly as possible.
Tecta Response is the most comprehensive disaster response program in the industry, able to handle any disaster, any roof, anywhere. We're experienced in disaster work, with the resources, communication and stability you need in your roofing company.

The calm before the storm.
If a facility is at risk of potential damage, we offer pre-storm agreements to establish advance authorization and collaborate on a plan so our crews can be ready to go.

Hit the ground running.
Our repair crews arrive within 48-72 hours to inspect the roof, assess the condition and begin making temporary or permanent repairs.

Nimble, flexible and reliable.
How we get you back in business—fast:
Resources: over 3,500 expertly trained roofing professionals nationwide
Experience: Andrew, Katrina, Rita and more; we know what it takes to work in hurricane zones
Materials: we have contracts with all major manufacturers to guarantee supply
Licensing: fully licensed to work ANYWHERE in the U.S.
Planning: easily accessible repair materials; crews have pre-arranged housing with mobile office capabilities, and are on-site with materials, equipment and resources as soon as the storm has passed.

How Could You Be Impacted?
Extreme Weather events can have devastating impact on your facility, including:

- Complete loss of roofing system, exposing facility to elements
- Severe damage leading to water intrusion
- Costly interior damage
- Facility downtime due to safety and equipment issues
- Inventory loss
- Inability to have to get a contractor on a timely basis
- Issues with your insurance company covering your damages

Protection and Response You Can Count On For All Types of Extreme Weather
Our unique Tecta Response program provides you with the security of having a qualified, heavily-resourced national roofing contractor perform an immediate response to your facilities' needs. Because this is a preplanned program: planning, execution, and pricing can be put into place far in advance of the actual storm events. Depending on the level of service you sign up for, this response can range from simple inspection and reporting, to immediate mitigation, temporary protection, and full solution. Regardless of the extreme weather event type, our goal remains the

same: to quickly and attend to your facility's needs, minimize damage expenses, and reduce your cost of downtime.
A Tecta Response Master Storm Agreement has a specific rider for each major type of extreme weather event. Each is uniquely designed to your specific needs in each type of event, to quickly mitigate damages and to get your facility back to normal operations as quickly as possible.

Hail: In the enrollment process for Hail Response we will discuss:
* Roofing types * Emergency contact information * Warranty information
Tecta America subscribes to several third-party storm monitoring agencies and can very quickly communicate to Tecta exact zip codes where hail activity occurs while it is happening. We will cross reference these reports with facilities that have enrollment in our program and immediately engage Phase One damage assessment inspections if hail size reports exceed the thresholds agreed upon in the enrollment process. If we arrive on site for Phase One damage assessments and find damage, we will immediately dispatch Phase Two temporary roofing and repair crews to mitigate damages and get the roof into a watertight state. Phase Three, for hurricane response, if needed, is working hand in hand with you and your Risk Management group to develop and implement a long-term solution.

ABOUT TECTA AMERICA CORP

RELEVANT EXPERIENCE AND CORPORATE OVERVIEW

Sterile facts and figures do not tell the true story of an organization's strength, stability, and commitment to client satisfaction. This section of our proposal highlights relevant information that will help the National Cooperative Purchasing Alliance understand the nature of our company. More important, we want you to understand why these things should be important to the NCPA, and how they will help you achieve your
business goals.

OUR DIFFERENTIATORS
BUSINESS STRENGTHS THAT MAKE A DIFFERENCE

Selecting the right roofing contractor can be challenging. How do you know you will get the results you want? Does the contractor have the right type of background and experience? How do you compare one contractor against another—beyond the color of their trucks, or the weight of their proposals? This section of the proposal discusses several important business strengths that differentiate Tecta America from other roofing contractors. Though there are many reputable and knowledgeable contractors in the market, the following differentiators will help define why Tecta America is the right partner for the National Cooperative Purchasing Alliance. We encourage you to check out the facts—and compare.

Dedicated Professional Service Departments
The ongoing service you receive from your roofing contractor is just as important as the quality of installation—perhaps more so. Even the best roofing system requires maintenance and professional

support. Tecta America has dedicated service departments to troubleshoot problems that might arise and recommend the best solutions. Roof leaks can be difficult to assess and fix; a challenging task for contractors who simply pull workers off production crews to handle warranty issues or roof leaks. Our service departments offer the most responsive, knowledgeable service in the industry. This means that the NCPA will have any future roofing issues handled effectively and promptly. In addition, our service techs are uniformed and professional, providing a better image while on your property.

Experience and Tenure: Meeting Your Current and Long-Term Needs

The average tenure of our operating locations exceeds 60 years. Our staff of over 3,500 professionals has seen virtually every type of roofing issue and has the collective experience to solve problems—fast. In contrast, the typical roofing contractor is a sole proprietorship that has been in business less than ten years; and employs fewer than 35 workers. Tecta America will be around for the long haul to service your ongoing roofing needs. Given that most roofing systems are designed to last an average of 15-20 years, it's comforting to know that your contractor will be in business as long as the roof they install.

Flexibility and Local Presence

Because of our adaptability and local presence, Tecta America has the resources to support the National Cooperative Purchasing Alliance's project, regardless of size or scope. We have the methods and processes in place to integrate with your organization and remain focused on your needs.

Roof Management Program for Facility Managers

Managing a roofing system, and preparing associated budgets, is outside the realm of experience for many facility managers. To fill this knowledge-gap, Tecta America offers the only Roof Asset Management program designed specifically for facility managers. The program provides a common platform for all your roofing information. Inspections and information gathering are done in a consistent format and allow you to compile comprehensive data on your roofing assets. This helps you avoid budget surprises by giving you the ability to make plans based on current and accurate data.

Safety Practices that Translate into Quality Installation and Service

The nature of roofing work has many inherent safety risks. Contractors with good safety records not only protect their workers, they also help avoid possible liability claims due to falls and accidents. But beyond these obvious advantages, a good safety record also reflects on the quality of work performed. This is because the same processes that comprise a good safety program—training, pre-job planning, and job-site communication—are also critical factors in quality installation and repair.

Tecta America has the most comprehensive safety program in the roofing industry. Testament to this fact is that we have an Experience Modification Ratio (EMR) of only .53, half that of the industry average. (A lower EMR indicates fewer accidents.) With this prominent focus on creating

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a safe work environment, the NCPA has the assurance that we have an equally strong focus on quality installation and maintenance.
The best indicator of future success— is past success. The National Cooperative Purchasing Alliance has many choices to assist with your roofing program; and you can't afford to select a contractor that doesn't have your best interests at heart. We know that the most important testimonials about our commitment to client satisfaction come not from Tecta America, but rather from our customers.

GREEN ROOFING INITIATIVES

TectaGreen is the total green roof solution. As the nation's leading green roof contractor, we've installed and maintained more green roofs than anyone else. From start to finish—and beyond—our roof experts will ensure that your green roof is the healthiest it can be.

Vegetative Roofing or "Green Roofs" are composed of several layers including soil media and vegetation. These roofs are growing in popularity, especially as the concern with global warming has reached all levels of government and business. Many municipalities provide tax benefits for builders that construct or retrofit their buildings with vegetative roofs.

These systems offer a variety of benefits:
They reduce the amount of storm water discharged into municipal sewer systems, thus helping reduce the dangers of flooding.
The vegetation that is an essential part of these systems helps absorb pollutants, including greenhouse gases such as carbon dioxide.
These roofs help reduce the "heat island" effect in urban areas, where the concentration of concrete and other heat-absorbing materials can increase the temperature by several degrees in relation to less built-up areas.
Vegetative roofs provide increased insulation. Buildings on which these green roofs have been installed invariably experience lower heating and cooling costs.
These roofs provide increased plant and animal habitat. In many places where such roofs are becoming popular, there has been a notable increase in bird populations.
Green roofs often provide aesthetic benefits and serve as a major amenity for building occupants as these "roof gardens" gain in prevalence and popularity.

A TectaGreen roof offers a variety of benefits from economic to environmental to aesthetic. No matter what your facility's goals may be, our experts will design a green roof that accomplishes your objectives.

Reduced storm run-off - A green roof can retain up to 96% of storm water, allowing it to evaporate rather than drain into retention pond and lead to financial incentives.
Energy savings - On a 90 degree day, a green roof keeps the roof temperature a cool 95 degrees while a dark roof bakes to 160 degrees or more. Result: interiors stay cooler and energy costs go down.

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Extended roof life - Installing a green roof system has the potential to double the lifespan of a conventional roof. For example, 2011 Executive Report determined the Target Center in Minneapolis payback at 7.6 years, which mostly comes from saving the replacement costs.
Reduced carbon footprint - Green roof systems allow for plants to absorb CO2 and work to reduce the carbon footprint of your building.
Reduced Urban Heat Island effect - The surface of a green roof absorbs solar radiation and provides natural evaporative cooling.
Earn LEED points - A green roof provides more points than any other technology to achieve certification.

LEED - The Leadership in Energy and Environmental Design (LEED) program was created to provide a national standard for environmental construction in the building industry. When a building earns LEED points through environmental construction like a green roof, many states will reward the facility with tax credits and other financial incentives.

A Tecta Green roof can contribute up to 3-9 LEED points based on the USGBC rating system:
Sustainable Sites
Storm water Design: Quality Control – SS Credit 6.1 (1 pt.)
Heat Island Effect: Roof – SS Credit 7.2 (1 pt.)
Water Efficiency
Water Efficient Landscaping – WE Credit 1.1 (1-2 pts.)
Energy & Atmosphere
Optimize Energy Performance – EA Credit 1 (1-8 pts.)
Materials & Resources
Recycled Content – MR Credit 4.1 (1-2 pts.)
Regional Materials – MR Credit 5.1 (1-2 pts.)

Roofing Plus Solar Plus
Unlike most solar companies, Tecta has the ability to internally facilitate each stage of a solar project. Tecta works closely with each of our customers from initial assessment to project completion. Tecta's full service approach provides project feasibility analysis, system design, financing, development, installation and maintenance of roof and solar installations. Each aspect is specific to our customer's needs, tax situation, and the physical and regulatory conditions and incentives of the location of the system. Tecta's approach provides a single source for developing and delivering an integrated solution and achieving our customer's expectations and returns.

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Tecta has the experience and understanding to deliver solar solutions that complement rather than compromise roof-tops. We design our systems to account for the structural and design restrictions of the roof and apply thin-film or crystalline solutions with minimal to no penetrations. If the roof needs to be repaired or replaced prior to solar installation, Tecta has the expertise to perform these services in house. No other turnkey Solar Developer can provide both roofing and solar installation.

Determine Site Capacity | Physical area considered for solar

- Roof
- Roof age / conditions
- Roof warranty and insurer requirements
- Ground
- Soil conditions
- Drainage considerations
- Parking
- Zoning and permitted use, FAR, permeability
- Shading, setbacks, easements, ROWs, access
- Permitting
- Building & electrical
- Interconnection
- Environmental
- Special (FERC, FAA, etc.)
- Incentive Availability
- Solar production based incentives
- Solar renewable energy credits
- Grants
- Tax abatements
- Others

Feasibility Analysis and Customer Considerations
How much should it cost & when do we pay?
How much benefit comes out and when?
Constraints and limits

Public Sector - Tecta provides the solution for governmental entities looking to initiate sustainable energy projects: large, locally-sited solar power plants. These do not increase budget or consume scarce capital resources. Private ownership of solar equipment allows for Federal tax incentives to flow through to you as lower power costs. We will also work with you to ensure that our solar solutions meet the criteria for federal life-cycle cost requirements.

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Tecta‘s customers include:

State / Federal Governments. Tecta transforms empty rooftops or open space into renewable resources. By hosting a solar power system, government entities can secure long-term clean electricity supply without any upfront cost or maintenance expenses.

Municipal Agencies. A power purchase agreement with Tecta is an effective way for municipal agencies to accelerate renewable energy goals and provide their communities with locally produced, clean, reliable, long-term renewable power. Municipal buildings, landfills, and water & sewer treatment plants are excellent locations for such systems.

Schools and Universities. Tecta provides schools, school districts and universities with a cost-effective way to meet increased sustainability goals and mitigate volatile energy costs. By hosting a solar power system, administrators can reduce operating expenses and transform empty campus rooftops, parking lots, or vacant land into productive assets which support sustainable long term goals.

CONTRACTOR LICENSES

License Number: 17327
State: AZ
Trades: CONTRACTOR
License Number: ROC268373
State: AZ
Trades: K-42 ROOFING
License Number: ROC240655
State: AR
Trades: CONTRACTOR
License Number: 176510411
State: AR
Trades: CONTRACTOR
License Number: 6890411
State: CA
Trades: CONTRACTOR
License Number: 864500
State: CA
Trades: CONTRACTOR
License Number: 811111
State: CA
Trades: CONTRACTOR B C33 C39 ASB
License Number: 108533
State: CT
Trades: STATE CONTRACTOR
License Number: 9614546000
State: DE
Trades: STATE CONTRACTOR
License Number: 2005205492
State: DE
Trades: CONTRACTOR NONRESIDENT
License Number: 2003101239
State: DE
Trades: CONTRACTOR NONRESIDENT (GROUP CODE 335)
License Number: 2005206749
State: FL
Trades: CERTIFIED ROOFING CONTRACTOR
License Number: CCC1326995
State: FL
Trades: CONTRACTOR
License Number: CCC1328756
State: FL
Trades: STATE of FLORIDA QUALIFIED BUSINESS
License Number: QB0004388
State: FL
Trades: QB0004388
License Number: CCC057634
State: FL
Trades: CERT. ROOFING CONTRACTOR
License Number: CCC054767
State: FL
Trades: CERTIFIED ROOFING CONTRACTOR
License Number: CCC1327174
State: FL
Trades: CERTIFIED ROOFING CONTRACTOR
License Number: CCC014118
State: FL
Trades: ROOFING CONTRACTOR
License Number: CCC1328756
State: GA
Trades: ROOFING CONTRACTOR
License Number: L89024

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State: ID
Trades: CONTRACTOR
License Number: RCE31067
State: IL
Trades: ROOFING CONTRACTOR - UNLIMITED
License Number: 104-015059
State: IL
Trades: ROOFING CONTRACTOR - UNLIMITED
License Number: 104-015241
State: IL
Trades: CONTRACTOR
License Number: 104-015129
State: IN
Trades: CONTRACTOR (INDIANAPOLIS)
License Number: C0027100
State: IA
Trades: CONTRACTOR
License Number: 04030-06
State: IA
Trades: CONTRACTOR
License Number: C000416
State: IA
Trades: CONTRACTOR
License Number: C000412
State: LA
Trades: COMERICAL
License Number: 44761
State: LA
Trades: COMERICAL
License Number: 16271
State: MD
Trades: NON-RESIDENT CONSTRUCTION
License Number: 15401053
State: MD
Trades: CONTRACTOR
License Number: 13394902
State: MD
Trades: CONTRACTOR
License Number: 30718185
State: MD
Trades: CONTRACTOR
License Number: 30439539
State: MN
Trades: CERT. of AUTHORITY
License Number: 20381592
State: MS
Trades: CONTRACTOR
License Number: 15380
State: MS
Trades: ROOFING SHEET METAL AND SIDING
License Number: 15028
State: NE
Trades: CONTRACTOR
License Number: 26231
State: NV
Trades: CONTRACTOR
License Number: 0066653A
State: NJ
Trades: CONTRACTOR
License Number: N/A
State: CO
Trades: CONTRACTOR
License Number: 93907
State: NM
Trades: ROOFING
License Number: 10626
State: NY
Trades: no license required
License Number: N/A
State: NC
Trades: ROOFING
License Number: 59525
State: NC
Trades: CONTRACTOR
License Number: 60043
State: NC
Trades: G.C.
License Number: 24608
State: ND
Trades: CONTRACTOR
License Number: 1198800
State: OH
Trades: CINCINNATI STREET CONTRACTOR
License Number: TL20100179
State: OH
Trades: CINCINNATI CONTRACTOR
License Number: CBRC000600
State: OH
Trades: COLUMBUS CONTRACTOR
License Number: G4542
State: OR
Trades: COMMERICAL G.C.
License Number: 186215
State: PA
Trades: CONTRACTOR
License Number: 11072519

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State: RI
Trades: CONTRACTOR
License Number: 24544334
State: SC
Trades: G.C.
License Number: G10976
State: SC
Trades: CONTRACTOR
License Number: 112352
State: TN
Trades: G.C.
License Number: 24009
State: TN
Trades: CONTRACTOR
License Number: 208783
State: TN
Trades: CONTRACTOR
License Number: 62356
State: UT
Trades: CONTRACTOR
License Number: 6789165-5501
State: VA
Trades: CLASS A VA CONTRACTOR
License Number: 2701030688A
State: VA
Trades: CLASS A VA CONTRACTOR
License Number: 2701023304A
State: VA
Trades: CLASS A CONTRACTOR
License Number: 2705096911A
State: WA
Trades: CONTRACTOR
License Number: WESTERS973-BN
State: WA
Trades: WA STATE CONTRACTOR
License Number: TECTAAS905DH
State: WV
Trades: CONTRACTOR
License Number: WV039408
State: TX
Trades: CONTRACTOR
License Number: N/A
State: ME
Trades: CONTRACTOR
License Number: N/A
State: N/A
Trades: N/A
License Number: N/A
State: MA
Trades: CONTRACTOR
License Number: N/A
State: KY
Trades: CONTRACTOR
License Number: N/A
State: WI
Trades: CONTRACTOR
License Number: N/A

Tecta America has thoroughly reviewed the Contract Terms and Conditions for this solicitation. We understand your needs and are confident in our operational and procedural foundation, which meets or exceeds the specific requirements for the operations and management of the contract.

Tecta's management approach to successful execution will emphasize the following priorities:

- Development of value-based solutions and detailed scopes of work
- Procedural compliance with Member requirements for task order approval
- Safety
- Quality Control
- Subcontractor and HR Management
- Cost Control
- Schedule Control

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Operations & Maintenance Overview

Ice damage, high winds, rain and snow will take their toll on any roof. And while you can't know when these weather events will take place, you should know that you're prepared for them. Otherwise you run the risk of unexpected roof problems interrupting your business, causing unhappy tenants, disappointed customers and severe financial loses for your business. The good news is a small investment in a regular program of roof inspections and maintenance can help you avoid and minimize unexpected and costly repairs. In fact, independent analysis shows that dollars spent on preventive maintenance programs have a positive NPV and deliver 300% ROI over time.

Planned Maintenance: The best way to prepare for the worst

Tecta America's Planned Maintenance program is designed to take the worry out of roof asset management, while protecting and prolonging the life of your roof by:

- Providing predictable roofing expenses and lower overall costs.
- Helping you budget maintenance dollars and allocate capital replacements.
- Keeping your warranties valid and your roofs performing at their best.
- Tailoring a program to specifically fit your roof and your business.

The plan for planned maintenance:

Inspect - Our trained technicians examine the exterior roof system, while noting the conditions of wall panels, area dividers, parapets and roof penetrations and documenting conditions to monitor in the future.

Clean - All debris is removed from roof surface, gutters, interior drains and through-wall scuppers to prevent ponding water that may cause premature roof aging and damage.

Maintain - As needed, we replace deteriorated sealant on metal flashings, top-off pitch pans, re-seal suspect flashing at equipment curbs and perimeters. We also secure drain clamps and rain collars at pipe penetrations.

Report - We provide an annual summation of work performed, assessment of roof conditions, including updated roof drawings and photographs.

Restore your roof and your confidence - Harsh weather, installation of equipment, traffic on the roof or neglect can cause some roofs to show considerable wear, to the extent they fail before reaching their predicted usable life. But these roofs can be restored to a maintainable condition so they will reach their expected useful life, which in turn, delays the capital cost of major roof replacement.

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As part of TectaCare Planned Maintenance, **Tecta** will make all the necessary repairs to bring your roof to maintainable condition. And all repairs made for roof restoration are backed by Tecta's one-year, leak-free renewable guarantee.

Key Features of TectaCare	
Free enrollment	●
Qualified Roofing Technicians	●
Licensed, bonded and fully insured	●
Leak free guarantee for your roof*	●
24/7 Solutions Center for immediate service dispatching	
Routine planned maintenance visits	●
Tenant improvements	●
Due diligence	●

*with recommended repairs performed

Roof Asset Management Overview

Tecta Plan, Tecta's Roof Asset Management Program, gives you all the information you need to manage a portfolio of roofs and the tools to optimize your roof maintenance and capital budgets.

Tecta Plan is powered by Tecta Tracker, a proprietary information platform designed to provide more effective management of your roofing portfolio. It starts with Tecta Tracker Qualified Technicians performing a rigorous assessment and gathering relevant data that drives informed roofing decisions. All of our Tecta Tracker Certified Technicians must undergo extensive training and testing to qualify them for this distinction.

The Tecta Plan Roof Asset Management program evaluates roof conditions, repair costs and forecasts the remaining useful life of each of your roofs. The proprietary Roof Assessor scores your roof system on key criteria leading to an objective, quantitative score. This allows you to compare different roof sections and facilities in order to prioritize roof spending. Consequently, Tecta Plan helps you avoid unexpected budget and roofing issues, facility downtime and premature roof failure or replacement.

Data Acquisition & Entry Process

- Tecta Certified Inspectors perform field inspections assessments.
- Photos will taken by site personnel & processed
- Field data will be securely delivered to Tecta's secure site for data entry, processing, and drawings
- Secure Site Set-Up
- Reports Delivered according to NNSA Guidelines

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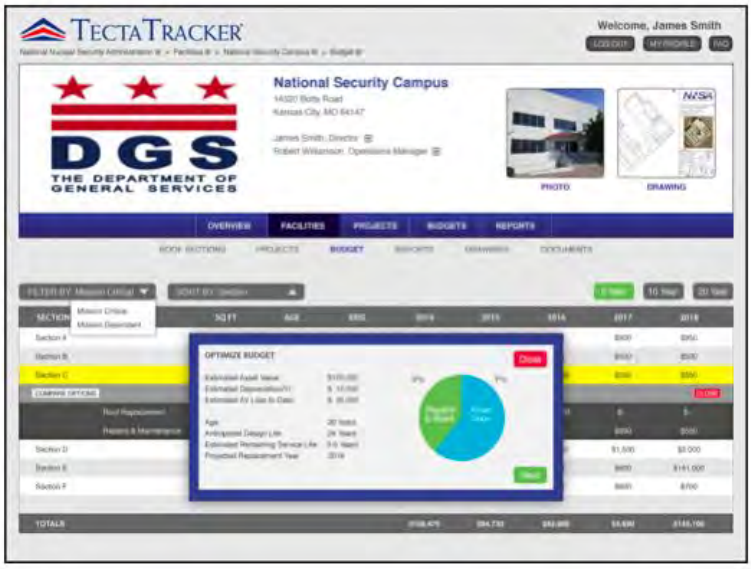
TectaTracker®

- Launched in 2001, TectaTracker is the premier roof asset management software in the roofing industry.
- Developed exclusively by Tecta America
- 4,000 facilities/14,000 roof sections & 200M SF under management
- On-demand 24/7 access via web portal



Tecta Tracker Database

- As-built data organized & stored for easy reference
- Warranty status & documents cataloged
- Snap-shot view captures age, pending repairs, roof condition & photos

Powered by TectaTracker:

Detailed Documentation

- All your critical information in one place, including drawings, photos, warranties, proposals, historical information and other documents for quick, secure access. An invaluable resource for large portfolio managers.

Roof Assessor

- Provides you with an objective assessment of the roof condition and estimated remaining service life. TectaTracker's consistent rating systems help you evaluate overall roof performance.

Reports

- Create customized reports on one or multiple properties in your online portfolio to meet your specific needs, and get detailed information on your roof system and roof condition.

Financial Planner

- Get a better handle on budgeting. Provides a 10-year forecast and condition-based estimate of anticipated maintenance and repair costs. In addition to budgeting operating costs, track capital expenses and perform a deferred analysis on any or all roofs in your portfolio.

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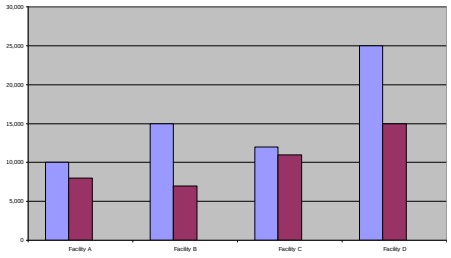
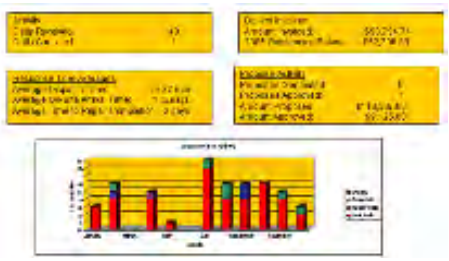
Current year roofing expense



Service Center Report

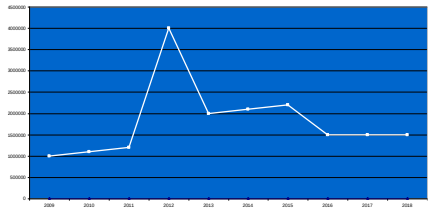


Work Order Summary

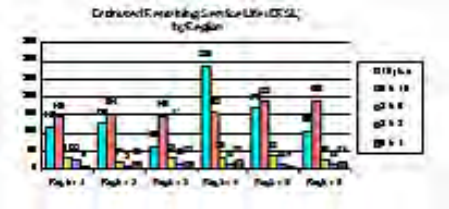
Work Orders Requested	Work Orders Completed	Open Work Orders
78	65	13

Total Dollars	Avg/Order
$300,000	$3,846

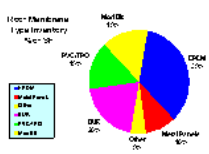
10 year forecast

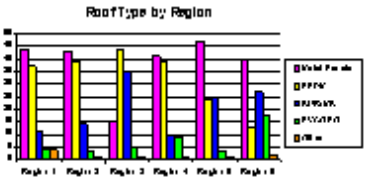


ERSL at a Glance



Roof Inventory





Program Benefits

- Simplified process
- Consistency in reporting, tracking, and pricing
- Immediate and Long-Term Savings
- Quality, safety, industry strength
- One point of contact
- Transparent process locally
- Warranty protection and documentation
- Service and response
- Ability to better track and predict future expenditures

TectaTracker is a key element in delivering a strong preventive maintenance program

- The Roof Assessor Tool provides an objective quantitative assessment of the roof condition
- The 5-year forecast provides data to use in budgeting operating costs
- The remaining estimated life provides information for capital expense budgeting
- Fact based analysis of roof condition
- Allow owner to prioritize between multiple buildings, roof sections

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PROJECT TECHNICAL APPROACH & MANAGEMENT PLAN

This section of the proposal covers Key Personnel Roles & Responsibilities, Subcontractor Management, Safety, Quality Control, Contract Administration, Scheduling/Cost Control, Waste/Debris Management, and Contract Close-Out:

TECTA's management approach to successful management will emphasize the following priorities:

- Safety
- Quality Control
- Subcontractor and HR Management
- Cost Control
- Schedule Control

In our response, we have provided for your evaluation a summary of our capability to meet these critical priorities to successful management of this project.

Preconstruction – Our estimating and preconstruction ("Pre-Con") department supports the efforts of our group in developing cost estimates for the SOW under this contract. Our Pre-Con department is uniquely qualified to provide hard dollar lump sum bids via drawing take off efforts, etc. as well as conceptual design build cost proposals.

Logistics – TECTA operates multiple crews, in every Operating Unit to serve our projects. In addition, we have space to store fabricated materials, purchased materials, and equipment. This allows us to deliver fabricated materials and equipment directly to the jobsite on a schedule basis. This makes logistics on the jobsite cleaner and easier for the owner and prevents unplanned deliveries and coordination issues with the owner's facility.

Accounting – We track labor, material, and subcontractor costs on every project by work activity on the project. We use MS Project or Primavera to develop our schedules. Schedules can be cost loaded if required but we typically use an agreed upon schedule of values to back up our monthly billings on lump sum project. We routinely perform cost plus projects in the commercial sector and our accounting system is capable of tracking and reporting costs that directly back up our billings on these projects. Our experience in accounting on government projects is the backbone of our ability to control job cost. TECTA accounting systems and practices will allow our project manager to know and manage the costs of all components of a project as it is being performed.

Outline of SOW Response and Process

PRECONSTRUCTION
Step 1. TECTA Corporate Construction Executive will review the SOW to develop resource plan to achieve the best value. The Operating Unit President assigns a Project Manager (PM). The PM will attend site visit and clarify any ambiguities related to the SOW and client's project objectives.
Step 2. Led by TECTA's PM, planning is developed for the project approach, implementation, crew selection, subcontractor qualification/selection, identification of cost saving methods, prepare work/cost schedule, develop preliminary quality control and safety plans.
Step 3. The PM will submit a cost effective low-risk technical plan for review and approval to the Corporate Construction Executive and the client.

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Issuance of Notice-to-Proceed (NTP)
Step 1. PM will coordinate project plans by conducting a "kick-off" meeting with the assigned Quality Control Manager (QCM), Safety Manager and Superintendent.
Step 2. PM will coordinate the project specific plan for technical execution in order to institute work controls, product material submission and permit requests, manage productivity, direct resources, prepare closure reports, prepare weekly reviews, monitor cost/schedule progress, respond to modifications, track subcontractor performance and enforce corrective actions. The project plan will include an environmental protection and site security plan.
Step 3. Quality Control and Safety Plan will be submitted within *2 days*. The plan will include enforcement of the initial team orientation meeting, safety/quality controls, project objectives, schedule milestones, inspections and preparation of reports.
Step 4. PM will establish the appropriate site security, environmental protection measures, and begin mobilization of personnel and equipment to complete the project accident free, on–time and within budget.
Step 5. Demolition and reinstallation of roofing system per project scope.
Step 6. Final inspections and punch list completion.
Step 7. PM, QCM and Superintendent conduct project closeout.

Project Manager – Our PM will be responsible along with the project management team for all estimating, scheduling, budgeting, purchase orders and subcontracts. The PM will have signatory authority, will be able to negotiate work orders, and will have the full authority to bind TECTA. The PM will be a source of contact for the duration of the project. This approach will eliminate all communication confusion. The PM will generate monthly invoices, update CPM schedules, manage subcontractors, write purchase orders and monitor project budgets.

Quality Control Manager – The Quality Control Manager (QCM) assigned to the project will manage the performance of our QCM functions. The QCM oversees the thorough inspection of the project every day and ensures that proper QC instruction is given and followed. The QCM answers to the PM only in matters of daily logistics, but the QC program has its ultimate source of authority at the Office. In this way, QC remains the highest priority and will not suffer as a result of other project concerns. It also provides the QCM with the ultimate autonomy to make decisions solely with regard to quality.

The responsibilities of our QC inspection personnel also include scheduling their efforts to ensure that inspections are completed and documented in a timely manner. The QCM will ensure that the contracting office is always notified in advance of our inspections and will invite your inspectors to observe, participate, or advise in those inspections. QC is one of our highest priorities and it is the responsibility of the QCM to ensure that quality control inspections are implemented on every delivery order and that QC education is provided to each of our employees and subcontractors. The QCM will also respond to engineering and contracting issues as well as perform trend analysis and whenever necessary, initiate corrective action. In addition to the daily inspection of work sites, the QCM will insist that certain pre-set milestones (definable features of work) have quality control approval before the project can advance. These milestones are defined as structural, mechanical, electrical, or otherwise complex or critical project elements.

The client will be notified by the QCM when milestone quality inspections are to take place. When necessary, all quality control sampling and testing will be performed by subcontracted sources and outside laboratories. Certificates of accreditation will be required of all testing laboratories or specialists used under this contract. We will provide copies of the certificates and any other verification of compliance to the client. Our QC plan is designed to prevent problems and/or catch problems prior to project completion. This has virtually eliminated punch list items at our contract sites. However, if any items are found upon final inspection, we will take immediate action to correct all punch list items as soon as possible. A report will then be submitted to the client, detailing the correction of each item.

Superintendent – The on-site Superintendent reports directly to the PM and is responsible for supervising the work of craftsmen and subcontractors, maintaining project schedules, and verifying that work is completed in accordance with the plans, scope of work, and specifications. He will also ensure that proper safety and housekeeping procedures are followed, and that progress reporting is performed in a timely manner. The Superintendent will maintain constant communication with the subcontractors as well as the PM in order to ensure that the project proceeds in accordance with our high standards of quality, timeliness, and safety. The Superintendents are authorized to initiate change orders, if necessary, to expedite work.

The Superintendent will also work with the QCM and Safety Manager to ensure that all the TECTA Team personnel and subcontractors are aware of quality and safety issues and are provided educational opportunities and safety training when necessary. The Superintendent will ensure that any new addition to the on-site workforce attends a safety orientation and receives any necessary individual instruction with regard to safe work procedures. The project Superintendent will be held responsible for accident prevention and will issue safety instructions when work assignments are made, verifying that all crews have, as well as use, the proper protective equipment. He will also check for unsafe practices and conditions, and assist the QCM in checking for unsafe practices and investigating any accidents to determine cause and corrective action.

Safety Approach to Field Implementation and Enforcement – "Safety First" is the priority at TECTA. Our Safety Manager assigned to this project will have completed a minimum of 30-Hour OSHA training. The role of our Safety Manager on the contract will be to develop and coordinate the site-specific Safety Plan, to include implementing the safety, environmental protection and security plan for all on-site personnel. Field Safety Managers will report to the TECTA Corporate Safety Director.

"Safety First" is practiced at all times. Safety will always maintain a prominent role in all of TECTA's work plans submitted to the client. Our safety leadership will be comprised of a Safety Manager who will report to the PM. The Safety Manager will establish, manage and maintain a safe working environment, which allows construction personnel to build in accordance with design specifications with quality workmanship. Our assigned Safety professionals will lead meetings with all sub-contractors and ensure that all contractors are properly briefed on safety rules, regulations and considerations.

Responsibility for achieving our safety goals is held primarily by our Superintendent/Safety Manager but a priority for key personnel and subcontractors. Safety will receive full involvement of company management. Individual responsibilities are identified for field management. Every field management employee on our construction site may shut down a particular work operation that poses 'imminent danger' or if a situation arises which is immediately dangerous to life or health.

When such action has been taken, the Primary POC and/or PM shall be immediately notified and actions to remedy the situation shall be implemented. Managers and Supervisors from trade subcontractors shall also ensure that employees placed under their direction are trained and informed of safe methods and shall conduct their responsibilities in a safe and professional manner. The PM will schedule a meeting to communicate safety orientation.

The Safety Manager will ensure safety concerns are addressed to enforce safety awareness. The Safety Manager will develop a site-specific safety plan that will incorporate security concerns as well. The Safety Manager will brief the on-site construction team to include subcontractors. Safety will be the responsibility of everyone on the job site. Safety and quality principles are inseparable. Our priority for each project is to perform quality work in the most efficient, and safe manner possible.

Sustainability and Waste Management Approach – TECTA will implement reuse and recycling procedures to reduce disposal. TECTA will ensure that debris management is incorporated into the scope of work for the contract. TECTA will develop and implement procedures to keep solid waste from being contaminated and in a condition required for acceptance by a designated reuse, recycling, or disposal facility. Solid waste, rubbish, debris, and other discarded solid materials will be placed in containers that are emptied on a regular schedule. Handling and disposal will be conducted to prevent contamination. Segregation measures will be employed so that no hazardous or toxic waste will become co-mingled with solid waste. The solid waste will be transported off of public property, and disposed of in compliance with Federal, State and local laws and regulations pertaining to the use of landfill areas.

Problem Prevention and Minimization – Weekly training will be conducted by the Superintendent in an effort to prevent and/or minimize any adverse environmental problems. The training will be completed before work begins and when conditions change. This training shall include methods of detecting and avoiding pollution; familiarization with pollution standards, both statutory and contractual; and installation and care of devices, and instruments required for monitoring purpose to ensure adequate and continuous environmental pollution control. Listed below are the project specific learning objectives of this training:

- Provide an overview of environmental and sustainability issues.
- Ensure compliance with federal, state, and local environmental laws.
- Review of site-specific procedures and management plans to establish expectations.
- Methods of detecting and avoiding pollution
- Familiarization with statutory and contractual pollution standards.
- Anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants
- Spill containment exercise will occur monthly as part of weekly toolbox meetings establishing a familiarity with a plan in case a spill occurs.

Proposed Processes for Requests For Information (RFI) – RFI's may be initiated by anyone providing services to the project. The RFI may be prepared in electronic format and/or hard copy. An RFI will be funneled through Foreman, Superintendent and/or the PM. Each RFI will be reviewed by the next level of management with final review by the QCM. Upon final formation, the RFI will be submitted to the client by the QCM or PM. Upon receipt of the client response to an RFI, it will be delivered to the Project Engineer for copying, filing and distribution to the PM. The PM will process the RFI according to the required action with the Superintendent, Foreman, etc. Should the RFI response impact the management plan or schedule, changes will be made according to the required action.

Submittal Reviews and Approval – Submittal information will be provided by and prepared by the TECTA QCM responsible for the action being documented/ reported. The submittal information will be validated and submittal documents prepared by the QCM. Each submittal package will be approved for submittal to the client by the PM/Submittal Reviewer and QCM. A transmittal form will be generated for numbering and tracking on the submittal register.

Testing Laboratories and Procedures – When necessary, all QC sampling and testing will be performed by subcontracted sources and outside laboratories. Certificates of accreditation will be required of all testing laboratories or specialists used for any testing done under this contract. We will provide copies of these certificates, chain-of-custody and any other verification of compliance to the client. The testing company used might vary from project to project, but each testing subcontractor will be required to produce the necessary qualifications and credentials to perform laboratory testing.

Project Closeout Procedures – The QCM will perform the final building turnover, close-out and commissioning in accordance with the following:

- Manage and implement a Commissioning Plan for all systems associated with the SOW for this contract through coordination with each discipline
- Develop & maintain a punch list of all construction deficiencies at end of construction period. QCM will ensure all deficiency items have been completed and/or corrected prior to Owner turnover. The Owners Representative will participate in preparation of the Final Punch List
- Develop and organize equipment and system training involving installing contractors and suppliers. All training will be coordinated and scheduled with end user upon completion; startup and commissioning of each equipment item and/or system.

TECTA's Completion Package – Once the project is complete, any changes or modifications to the construction drawings must be incorporated into accurate as-built drawings, submitted to the client in the package listed below. As-built drawings will show changes and revisions to the construction drawings including structural details, foundation layouts, subsurface utility lines, equipment, sizes, etc. If the completed construction reflects no modifications to the construction drawings, then copies of the original construction drawings may be stamped "as-built drawings."

TECTA Completion Package:

- Book of Warranties
- Product User Information Binder:
- Safety Precautions
- Normal Operations and Service Requirements with Maintenance/Repair Procedures
- Environmental Conditions
- Material Safety Data Sheets
- Personnel Training Requirements and Briefing from TECTA Superintendent
- TECTA Contact Information
- As-Built Drawings
- Property Records

Tab 5 – Products and Services

- It is the intention of NCPA to establish an annual contract with highly qualified vendor(s) for Roofing Products and Services on a national basis. Vendor(s) shall, at the request of NCPA member, provide these covered services under the terms of this RFP and the Contract Terms and Conditions. Vendor shall assist the NCPA member with making a determination of its individual needs, as stated below.

- The Contractor shall furnish all necessary labor, materials, tools, supplies, equipment, transportation, supervision, management and shall perform all operations necessary and required for construction work. All work shall be performed in accordance with the requirements set forth in the resulting contract and each mutually agreed upon work request or purchase order issued by the NCPA member.

INFORMATION TO OFFERORS

- NCPA intends to enter into Roofing Products and Services Contract(s) for the construction, maintenance, repair and alteration services related to roofing systems. These contracts will be available for use by all public entities such as ESC's, ISD/USD's, universities, city and county governments, community colleges, state and federal agencies in these United States and other jurisdictions. It may also be used by certain private non-taxed entities. Each entity signs an inter-local agreement approved by their board or designated agent with NCPA when required by state statute.

- Offerors are encouraged to offer turn-key solutions to address the full range of roofing services being sought in this solicitation, however offering a turn-key solution is **not** a requirement that must be met in order to be considered for award.

OFFERORS ARE REMINDED THAT NO WORK IS OR HAS BEEN GUARANTEED UNDER THIS CONTRACT.

- Those companies seeking multiple state awards should provide contractor license to work in the requested states and propose a separate coefficient for each.

- If a respondent is awarded a contract for the requested states and later decides to request additional states to work in under the contract, then a written request must be made to NCPA requesting the additional state(s). In addition, the contractor must provide proof of license and bonding capability to work in the requested new state(s) along with proof of insurance and other relevant documents. It is the intent of NCPA in this document to meet each state's statutory requirements for performing Roofing Services in that jurisdiction.

- If a respondent is awarded a contract for the requested states and later decides to request that additional affiliates be allowed to work on this contract, then a written request must be made to NCPA regarding the addition of the affiliate(s). Successful Respondents must also submit a written request to NCPA if they wish to discontinue an affiliate from doing work on this contract. All work done under this contract by affiliates, subcontractors or other parties will be the responsibility of the primary contract holder.

- Upon award, the contractor may be designated as the NCPA roofing contractor by a client via an approved inter-local agreement. Clients may not compete Roofing Services jobs between contractors

or designated hard bids in violation of Texas State law. The inter-local or interstate agreement (members in other states may conform to their state and local statutes in using NCPA contracts) must be signed between each member and NCPA.

- The contractor should describe in its business plan how it will include and work with local subcontractors and how it will work with local architects and engineers, especially those A&E firms already working with client members.

- NCPA will receive 3% of the total revenue from each PO executed under this contract less any sales tax or performance or payment bond. This fee will be included in the contractor's pricing proposal and will not be issued as a separate line item in any job proposals issued to client members.

- NCPA encourages the use of HUBs, MWBEs and SBEs both as prime and subcontractors. However they must meet the same minimum standards and requirements as the prime contractor. It will be the responsibility of the prime contractor to pre-qualify their subcontractors. Some client members will have a set goal for subcontracting requirements and will require that a plan be attached as an addendum to the PO outlining how the contractor will endeavor to meet their goal. Specific plans as part of the contractors' business plan to meet these goals will be part of the overall contractors evaluation process as well as selection process for certain client members as a requirement for their delivery orders.

- NCPA will provide some oversight in assisting both the client members and the contractors in the marketing to the client members, training (education), and provide at a minimum an annual audit and review of each of the contractor's programs.

- The contractor at his expense and included as part of overhead will provide adequate insurance coverage meeting at a minimum the requirements of the State of Texas or the state where the job is located. The contractor, if awarded a contract, will provide within 14 days but prior to the commencement of work, a certificate of insurance showing that NCPA has been named as additional insured. If the member has higher insurance requirements, than those requirements may be added as an addendum to the purchase order.

- Recognized holidays include: Presidents Day, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day and New Year's Day.

- Regular work hours will be considered to be 7am to 5pm local time unless otherwise agreed by NCPA member. A schedule for performance of work that can be met without planned overtime is the responsibility of the Contractor, unless otherwise requested by the owner.

CONTRACT AND DOCUMENTS

- The contract shall include the contract, its terms and conditions, any agreed upon amendments, as well as all of the sections of the solicitation and the contractor's proposal. Once signed, if the contractor's proposal varies or is unclear in any way from the NCPA contract, NCPA, at its sole discretion, will decide which provision will prevail.

- Other documents to be included are the contractor's proposals, task orders, purchase orders and any attachments which have been issued.

PERFORMANCE BOND PLAN

- The contractor shall submit a detailed performance bond plan that will meet the member's local and state statutory requirements. The vendor is required to be knowledgeable and current on all statutory requirements for bonding. This should include, but is not limited to, a letter from a surety company that is licensed to do business in the states being proposed on in the submittal. Respondents shall also provide a written statement acknowledging that they can provide surety letters for any affiliates to NCPA or its members upon request. Contractors may need to provide additional capacity as work orders increase. Bonds will not require that a fee be paid to NCPA. The actual cost of the bond will be a pass through expense to the client and added to the purchase order.

SAFETY/ENVIRONMENTAL PLAN

- The contractor shall submit a detailed safety plan with their submittal. It should specifically address how the contractor will implement this plan with the subcontractors. The safety plan will need to address OSHA compliance, environmental compliance, drug testing, trend analysis and noncompliance corrective action. It should also state whether a safety officer will interact with the client member's staff and management of safety and environmental issues while working in occupied areas.

QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

- The contractor shall submit a QA/QC plan within with their submittal. This plan shall detail the day to day surveillance of work and provide documentation of deficiencies and corrective actions. It should note subcontractor compliance issues and trend analysis and how inspectors will interface and work with both the subcontractors and the client members staff.

SUBCONTRACTING PLAN AND/OR EXPLANATION OF APPLICABLE AFFILIATE RELATIONSHIPS

- The contractor shall submit a subcontracting plan with their submittal. This plan will explain the subcontracting procedures providing assurances that the subcontractors meet the same high standards as the contractor. This will include a subcontractors log, subcontractor qualification form, felony conviction notice and child and sex offender notice. This plan will also address how the contractor will implement his safety plan with subcontractors (may reference the contractors safety plan). The subcontractors will be held to the same standards as the primary roofing contractor.

- A distinct portion of the subcontracting plan needs to deal with attracting, utilizing and mentoring small and disadvantaged businesses including how your company will attract these firms. Describe how your company will institute a prompt payment plan upon completion and acceptance of their work and how your company will make progress payments to subcontractors on long term job orders.

- The contractor shall submit a plan detailing the relationship with any applicable affiliates that may do work under this contract. This submittal should include, but is not limited to, work history, credentials, PO processes and process to maintain upstanding workmanship and service.

PRODUCT PERFORMANCE MINIMUM REQUIREMENTS

- All roof systems must meet the regulatory requirements of the International Building Code, all applicable state and local codes for public buildings, including, but not limited to, UL 790, Class A, and FM Class 1-90 Fastening Standards. The prime contractor awarded a contract will comply with the latest, most stringent industry-standard construction details published by the National Roofing Contractors Association's The NRCA Roofing and Waterproofing Manual, 4th edition. (NRCA, 10255 W. Higgins road, Suite 600, Rosemont, IL 60018 || 847-299-9070 || Fax 847-299-1183). Any deviations, such as the use of proprietary designs of the prime contractor or special construction for regional climatic conditions, must be identified and explicitly agreed to by the NCPA member.

ASSOCIATED PROJECT SUPPORT REQUIREMENTS

- This will consist of the following points. (1) The contractor shall remove movable furniture in the work area and place it back in the required location upon completion. (2) The purchase, delivery and storage of project construction materials should not interfere with the clients operations. (3) Damages that occur to the client's facilities or equipment must be repaired or purchased to like or better condition by the contractor at no charge. (4) All permits will be acquired by the contractor and invoiced at cost as part of the purchase order, unless they are provided by the client member.

- If there is a dispute between the contractor and client, NCPA or its representatives will assist in conflict resolution or third party (mandatory mediation), if requested by either party.

- NCPA or its representative reserves the right to inspect any project and audit the contractor's NCPA project files, documentation and correspondence.

- Utilities at the job sites will be furnished free of charge to the contractor by the client member. Water will be furnished free, with all of the taps, connections and associated equipment supplied free of charge to the contractor or supplied by the contractor and charged to the client. Upon project completion, the connections will be removed at the direction of the client.

- It is the contractor's responsibility to analyze his electrical needs and the ability of the client's facility to accommodate his request. The electricity at the job site will be free to the contractor. It will be the responsibility of the contractor to coordinate his requests and needs with the client. If additional capacity is required, the contractor is responsible for arranging for the equipment, the installation and removal at his own expense. If possible, toilet facilities will be made available by the client or the contractor will make arrangements for portable toilets.

- The Member Agency reserves the right to require the contractor's employees, representatives and consultants to wear identification and stay in designated work areas at all times while on the Member Agency's property. The Member Agency shall have the right to effect the immediate removal of any person associated with the contractor from the member's property for failure to wear identification, for being outside a designated work area, or for engaging in any behavior that the member deems inappropriate directed toward or in the vicinity of students, employees, officials, or guests of the NCPA member.

- Contractor shall perform the appropriate background checks of any personnel that will be performing the services within the proximity of minors. Contractor shall notify the Member Agency of any proposed employee who has been convicted, pled guilty or pled "no contest" to a criminal

offense, and the Member Agency reserves the right to reject the proposed employee with a criminal background. No person employed by Contractor who has been found guilty of any criminal offenses shall be allowed into the work site without prior approval of the NCPA member.

Description of Products and Services Offered

(Note: Pricing is to be provided separately in the TAB 7-Pricing)

- A listing of products and services that should be offered under this contract is provided in TAB 7-Pricing, but the offering need not be limited by this listing. Contractor may provide additional products and services either in this section or the value-add section. Pricing on these non-line items products and services can be addressed through a margin, RS Means or any other auditable pricing mechanism. Any product or service offered must have pricing that can be audited as outlined in the Pricing section in this solicitation (TAB 7). RS Means or any other approved benchmarking service can be used as an alternate pricing mechanism for special situations. Provide the coefficient(s) for all applicable regions for RS Means on the final page provided in the TAB 7-Pricing.

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Tab – 8

All content for

Tab – 8

Value Added Product and Services

Included in Tab 4 Narrative

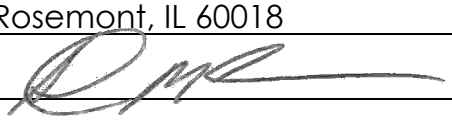
Please review Tab - 4

ATTACHMENT 1

Clean Air and Water Act & Debarment Notice

I, the Vendor, am in compliance with all applicable standards, orders or regulations issued pursuant to the Clean Air Act of 1970, as Amended (42 U.S. C. 1857 (h), Section 508 of the Clean Water Act, as amended (33 U.S.C. 1368), Executive Order 117389 and Environmental Protection Agency Regulation, 40 CFR Part 15 as required under OMB Circular A-102, Attachment O, Paragraph 14 (1) regarding reporting violations to the grantor agency and to the United States Environment Protection Agency Assistant Administrator for the Enforcement.

I hereby further certify that my company has not been debarred, suspended or otherwise ineligible for participation in Federal Assistance programs under Executive Order 12549, "Debarment and Suspension", as described in the Federal Register and Rules and Regulations

Potential Vendor	Tecta America Corp
Print Name	Andy Carr
Address	9450 W. Bryn Mawr, Suite 500
City, Sate, Zip	Rosemont, IL 60018
Authorized signature	
Date	11/15/19

Contractor Requirements

Contractor Certification
Contractor's Employment Eligibility

By entering the contract, Contractor warrants compliance with the Federal Immigration and Nationality Act (FINA), and all other federal and state immigration laws and regulations. The Contractor further warrants that it is in compliance with the various state statues of the states it is will operate this contract in.

Participating Government Entities including School Districts may request verification of compliance from any Contractor or subcontractor performing work under this Contract. These Entities reserve the right to confirm compliance in accordance with applicable laws.

Should the Participating Entities suspect or find that the Contractor or any of its subcontractors are not in compliance, they may pursue any and all remedies allowed by law, including, but not limited to: suspension of work, termination of the Contract for default, and suspension and/or debarment of the Contractor. All costs necessary to verify compliance are the responsibility of the Contractor.

The offeror complies and maintains compliance with the appropriate statutes which requires compliance with federal immigration laws by State employers, State contractors and State subcontractors in accordance with the E-Verify Employee Eligibility Verification Program.

Contractor shall comply with governing board policy of the NCPA Participating entities in which work is being performed

Fingerprint & Background Checks

If required to provide services on school district property at least five (5) times during a month, contractor shall submit a full set of fingerprints to the school district if requested of each person or employee who may provide such service. Alternately, the school district may fingerprint those persons or employees. An exception to this requirement may be made as authorized in Governing Board policy. The district shall conduct a fingerprint check in accordance with the appropriate state and federal laws of all contractors, subcontractors or vendors and their employees for which fingerprints are submitted to the district. Contractor, subcontractors, vendors and their employees shall not provide services on school district properties until authorized by the District.

The offeror shall comply with fingerprinting requirements in accordance with appropriate statutes in the state in which the work is being performed unless otherwise exempted.

Contractor shall comply with governing board policy in the school district or Participating Entity in which work is being performed

Business Operations in Sudan, Iran

In accordance with A.R.S. 35-391 and A.R.S. 35-393, the Contractor hereby certifies that the contractor does not have scrutinized business operations in Sudan and/or Iran.

Authorized signature

Date 11/15/19

Antitrust Certification Statements (Tex. Government Code § 2155.005)

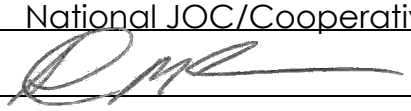
I affirm under penalty of perjury of the laws of the State of Texas that:

(1) I am duly authorized to execute this contract on my own behalf or on behalf of the company, corporation, firm, partnership or individual (Company) listed below;

(2) In connection with this bid, neither I nor any representative of the Company has violated any provision of the Texas Free Enterprise and Antitrust Act, Tex. Bus. & Comm. Code Chapter 15;

(3) In connection with this bid, neither I nor any representative of the Company has violated any federal antitrust law; and

(4) Neither I nor any representative of the Company has directly or indirectly communicated any of the contents of this bid to a competitor of the Company or any other company, corporation, firm, partnership or individual engaged in the same line of business as the Company.

Company name	Tecta America Corp
Address	9450 W. Bryn Mawr, Suite 500
City/State/Zip	Rosemont, IL 60018
Telephone No.	708-451-0743
Fax No.	847-581-3880
Email address	acarr@tectaamerica.com
Printed name	Andy Carr
Position with company	National JOC/Cooperative Contracts Manager
Authorized signature	

ATTACHMENT 1

FEMA Standard Terms and Conditions Addendum for Contracts and Grants

If any purchase made under the Master Agreement is funded in whole or in part by Federal Emergency Management Agency ("FEMA") grants, Contractor shall comply with all federal laws and regulations applicable to the receipt of FEMA grants, including, but not limited to the contractual procedures set forth in Title 44 of the Code of Federal Regulations, Part 13 ("44 CFR 13").

In addition, Contractor agrees to the following specific provisions:

1) Pursuant to 44 CFR 13.36(i)(1), University is entitled to exercise all administrative, contractual, or other remedies permitted by law to enforce Contractor's compliance with the terms of this Master Agreement, including but not limited to those remedies set forth at 44 CFR 13.43.
2) Pursuant to 44 CFR 13.36(i)(2), University may terminate the Master Agreement for cause or convenience in accordance with the procedures set forth in the Master Agreement and those provided by 44 CFR 13.44.
3) Pursuant to 44 CFR 13.36(i)(3)-(6)(12), and (13), Contractor shall comply with the following federal laws:
    a. Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor ("DOL") regulations (41 CFR Ch. 60);
    b. Copeland "Anti-Kickback" Act (18 U.S.C. 874), as supplemented in DOL regulations (29 CFR Part 3);
    c. Davis-Bacon Act (40 U.S.C. 276a-276a-7) as supplemented by DOL regulations (29 CFR Part 5);
    d. Section 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-30) as supplemented by DOL regulations (29 CFR Part 5);
    e. Section 306 of the Clean Air Act (42 U.S.C. 1857(h), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15); and
    f. Mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation play issued in compliance with the Energy Policy and Conservation Act (Pub. L.94-163, 89 Stat. 871).
4) Pursuant to 44 CFR 13.36(i)(7), Contractor shall comply with FEMA requirements and regulations pertaining to reporting, including but not limited to those set forth at 44 CFR 40 and 41.
5) Pursuant to 44 CFR 13.36(i)(8), Contractor agrees to the following provisions 72 regarding patents:
    a. All rights to inventions and/or discoveries that arise or are developed, in the course of or under this Agreement, shall belong to the participating agency and be disposed of in accordance with the participating agencies policy. The participating agency, at its own discretion, may file for patents in connection with all rights to any such inventions and/or discoveries.
6) Pursuant to 44 CFR 13.36(i)(9), Contractor agrees to the following provisions, regarding copyrights:
    a. If this Agreement results in any copyrightable material or inventions, in accordance with 44 CFR 13.34, FEMA reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, for Federal Government purposes:
        1) The copyright in any work developed under a grant or contract; and
        2) Any rights of copyright to which a grantee or a contactor purchases ownership with grant support.
7) Pursuant to 44 CFR 13.36(i)(10), Contractor shall maintain any books, documents, papers, and records of the Contractor which are directly pertinent to this Master Agreement. At any time during normal business hours and as often as the participating agency deems necessary, Contractor shall permit participating agency, FEMA, the Comptroller General of United States, or any of their duly authorized representatives to inspect and photocopy such records for the purpose of making audit, examination, excerpts, and transcriptions.
8) Pursuant to 44 CFR 13.36(i)(11), Contractor shall retain all required records for three years after FEMA or participating agency makes final payments and all other pending matters are closed. In addition, Contractor shall comply with record retention requirements set forth in 44 CFR 13.42.

Required Clauses for Federal Assistance provided by FTA

ACCESS TO RECORDS AND REPORTS

Contractor agrees to:

a) Maintain all books, records, accounts and reports required under this Contract for a period of not less than three (3) years after the date of termination or expiration of this Contract or any extensions thereof except in the event of litigation or settlement of claims arising from the performance of this Contract, in which case Contractor agrees to maintain same until Public Agency, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto.

b) Permit any of the foregoing parties to inspect all work, materials, payrolls, and other data and records with regard to the Project, and to audit the books, records, and accounts with regard to the Project and to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed for the purpose of audit and examination.

FTA does not require the inclusion of these requirements of Article 1.01 in subcontracts. Reference 49 CFR 18.39 (i)(11).

CIVIL RIGHTS / TITLE VI REQUIREMENTS

1) Non-discrimination. In accordance with Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000d, Section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, Section 202 of the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. § 12132, and Federal Transit Law at 49 U.S.C. § 5332, Contractor or subcontractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, marital status age, or disability. In addition, Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

2) Equal Employment Opportunity. The following Equal Employment Opportunity requirements apply to this Contract:

   a. Race, Color, Creed, National Origin, Sex. In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal Transit Law at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable Equal Employment Opportunity requirements of U.S. Dept. of Labor regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor, 41 CFR, Parts 60 et seq., and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of this Project. Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, marital status, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, Contractor agrees to comply with any implementing requirements FTA may issue.

   b. Age. In accordance with the Age Discrimination in Employment Act (ADEA) of 1967, as amended, 29 U.S.C. Sections 621 through 634, and Equal Employment Opportunity Commission (EEOC) implementing regulations, "Age Discrimination in Employment Act", 29 CFR Part 1625, prohibit employment discrimination by Contractor against individuals on the basis of age, including present and prospective

employees. In addition, Contractor agrees to comply with any implementing requirements FTA may issue.

c. Disabilities. In accordance with Section 102 of the Americans with Disabilities Act of 1990, as amended (ADA), 42 U.S.C. Sections 12101 *et seq.*, prohibits discrimination against qualified individuals with disabilities in programs, activities, and services, and imposes specific requirements on public and private entities. Contractor agrees that it will comply with the requirements of the Equal Employment Opportunity Commission (EEOC), "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 CFR, Part 1630, pertaining to employment of persons with disabilities and with their responsibilities under Titles I through V of the ADA in employment, public services, public accommodations, telecommunications, and other provisions.

d. Segregated Facilities. Contractor certifies that their company does not and will not maintain or provide for their employees any segregated facilities at any of their establishments, and that they do not and will not permit their employees to perform their services at any location under the Contractor's control where segregated facilities are maintained. As used in this certification the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion or national origin because of habit, local custom, or otherwise. Contractor agrees that a breach of this certification will be a violation of this Civil Rights clause.

3) Solicitations for Subcontracts, Including Procurements of Materials and Equipment. In all solicitations, either by competitive bidding or negotiation, made by Contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by Contractor of Contractor's obligations under this Contract and the regulations relative to non-discrimination on the grounds of race, color, creed, sex, disability, age or national origin.

4) Sanctions of Non-Compliance. In the event of Contractor's non-compliance with the non-discrimination provisions of this Contract, Public Agency shall impose such Contract sanctions as it or the FTA may determine to be appropriate, including, but not limited to: 1) Withholding of payments to Contractor under the Contract until Contractor complies, and/or; 2) Cancellation, termination or suspension of the Contract, in whole or in part.

Contractor agrees to include the requirements of this clause in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

DISADVANTAGED BUSINESS PARTICIPATION

This Contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, "*Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs"*, therefore, it is the policy of the Department of Transportation (DOT) to ensure that Disadvantaged Business Enterprises (DBEs), as defined in 49 CFR Part 26, have an equal opportunity to receive and participate in the performance of DOT-assisted contracts.

1) Non-Discrimination Assurances. Contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. Contractor shall carry out all applicablerequirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or other such remedy as public agency deems appropriate. Each subcontract Contractor signs with a subcontractor must include the assurance in this paragraph. (See 49 CFR 26.13(b)).

2) Prompt Payment. Contractor is required to pay each subcontractor performing Work under this prime Contract for satisfactory performance of that work no later than thirty (30) days after Contractor's receipt of

payment for that Work from public agency. In addition, Contractor is required to return any retainage payments to those subcontractors within thirty (30) days after the subcontractor's work related to this Contract is satisfactorily completed and any liens have been secured. Any delay or postponement of payment from the above time frames may occur only for good cause following written approval of public agency. This clause applies to both DBE and non-DBE subcontractors. Contractor must promptly notify public agency whenever a DBE subcontractor performing Work related to this Contract is terminated or fails to complete its Work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. Contractor may not terminate any DBE subcontractor and perform that Work through its own forces, or those of an affiliate, without prior written consent of public agency.

3) DBE Program. In connection with the performance of this Contract, Contractor will cooperate with public agency in meeting its commitments and goals to ensure that DBEs shall have the maximum practicable opportunity to compete for subcontract work, regardless of whether a contract goal is set for this Contract. Contractor agrees to use good faith efforts to carry out a policy in the award of its subcontracts, agent agreements, and procurement contracts which will, to the fullest extent, utilize DBEs consistent with the efficient performance of the Contract.

ENERGY CONSERVATION REQUIREMENTS

Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plans issued under the Energy Policy and Conservation Act, as amended, 42 U.S.C. Sections 6321 *et seq.* and 41 CFR Part 301-10.

FEDERAL CHANGES

Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Contract between public agency and the FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this Contract.

INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS

The provisions include, in part, certain Standard Terms and Conditions required by the U.S. Department of Transportation (DOT), whether or not expressly set forth in the preceding Contract provisions. All contractual provisions required by the DOT, as set forth in the most current FTA Circular 4220.1F, dated November 1, 2008, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Contract. Contractor agrees not to perform any act, fail to perform any act, or refuse to comply with any public agency requests that would cause public agency to be in violation of the FTA terms and conditions.

NO FEDERAL GOVERNMENT OBLIGATIONS TO THIRD PARTIES

Agency and Contractor acknowledge and agree that, absent the Federal Government's express written consent and notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying Contract, the Federal Government is not a party to this Contract and shall not be subject to any obligations or liabilities to agency, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying Contract.

Contractor agrees to include the above clause in each subcontract financed in whole or in part with federal assistance provided by the FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS

Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 CFR Part 31, apply to its actions pertaining to this Contract. Upon execution of the underlying Contract, Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to me made, pertaining to the underlying Contract or the FTA assisted project for which this Contract Work is being performed.

In addition to other penalties that may be applicable, Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on Contractor to the extent the Federal Government deems appropriate.

Contractor also acknowledges that if it makes, or causes to me made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307 (n)(1) on the Contractor, to the extent the Federal Government deems appropriate.

Contractor agrees to include the above clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

State Notice Addendum

The National Cooperative Purchasing Alliance (NCPA), on behalf of NCPA and its current and potential participants to include all county, city, special district, local government, school district, private K-12 school, higher education institution, state, tribal government, other government agency, healthcare organization, nonprofit organization and all other Public Agencies located nationally in all fifty states, issues this Request for Proposal (RFP) to result in a national contract.

For your reference, the links below include some, but not all, of the entities included in this proposal:

http://www.usa.gov/Agencies/Local_Government/Cities.shtml
http://nces.ed.gov/globallocator/
https://harvester.census.gov/imls/search/index.asp
http://nccsweb.urban.org/PubApps/search.php
http://www.usa.gov/Government/Tribal-Sites/index.shtml
http://www.usa.gov/Agencies/State-and-Territories.shtml
http://www.nreca.coop/about-electric-cooperatives/member-directory/
https://sos.oregon.gov/blue-book/Pages/state.aspx
https://portal.ehawaii.gov/government/
https://access.wa.gov/governmentagencies.html

Region XIV Education Service Center
1850 Highway 351
Abilene, TX 79601-4750
325-675-8600
FAX 325-675-8659

Friday, December 6th, 2019

Tecta America Corp
ATTN: Andy Carr
9450 W. Bryn Mawr, Suite 500
Rosemont, IL 60018

Dear Andy:

Region XIV Education Service Center is happy to announce that Tecta America Corp has been awarded an annual contract for Roofing Products and Services based on the proposal submitted to Region XIV ESC.

The contract is effective immediately and will expire on November 30th, 2023. The contract can then be renewed annually for an additional three years, if mutually agreed on by Region XIV ESC and Tecta America Corp.

We look forward to a long and successful partnership underneath this contract.

If you have any questions or concerns, feel free to contact me at 325-675-8600.

Sincerely,

Shane Fields
Region XIV, Executive Director

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Region XIV Education Service Center

1850 Highway 351
Abilene, TX 79601-4750
325-675-8600
FAX 325-675-8659

Thursday, September 14th, 2023

Tecta America Corp
ATTN: Andy Carr
9450 W. Bryn Mawr, Suite 500
Rosemont, IL 60018

Re: Annual Renewal of NCPA contract #02-75

Dear Andy:

Region XIV Education Service Center is happy to announce that Tecta America Corp has been awarded an annual contract renewal for Roofing Products and Services based on the proposal submitted to Region XIV ESC.

The contract will expire on November 30th, 2024, completing the fifth year of a possible seven-year term. If your company is not in agreement, please contact me immediately.

If you have any questions or concerns, feel free to contact me at 325-675-8600.

Sincerely,

DocuSigned by:
Shane Fields
8998FD6E54EE4F7...

Shane Fields
Region XIV, Executive Director

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION AUTHORIZING EXECUTION OF AN AGREEMENT WITH ROOFING CONSTRUCTORS, INC. DBA WESTERN ROOFING SERVICE FOR ROOF INSPECTION, MAINTENANCE, AND ON-CALL REPAIR SERVICES IN AN AMOUNT NOT-TO-EXCEED $700,000 FOR A THREE-YEAR TERM

The City of Livermore ("City") owns more than eighty buildings. As a result, the City requires services to inspect and maintain City roofs.

Livermore Municipal Code section 2.68.370 permits the formal bidding procedure for supplies, equipment, and general services to be dispensed with when purchased through a cooperative purchasing arrangement. Livermore Municipal Code section 2.68.390 permits the City to participate in cooperative purchasing programs if the underlying purchase was made using a quotation or bid procedure at least as restrictive as the City's.

Tecta America Corporation holds a competitively bid cooperative purchasing agreement for roofing products and services through the National Cooperative Purchasing Alliance (now OMNIA Partners). Roofing Constructors, Inc. dba Western Roofing Service is a subsidiary of the Tecta America Corporation. The City is a member of OMNIA Partners, and the underlying purchase at issue was made using a quotation or bid procedure at least as restrictive as the City's.

The proposed agreement with Roofing Constructors, Inc. dba Western Roofing Service provides for annual and semi-annual roof inspection, preventative maintenance, and general rooftop housekeeping services, and on-call roof repair services in an amount not to exceed $700,000. The term of the proposed agreement will commence on April 1, 2024 and terminate on March 31, 2027.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore that it hereby authorizes the City Manager, or her designee, to execute a general services agreement with Roofing Constructors, Inc. dba Western Roofing Service, attached hereto as Exhibit A, for annual and semi-annual roof inspection, preventative maintenance, and general rooftop housekeeping services and on-call roof repair services, in an amount not-to-exceed $700,000 for a three-year term.

On motion of Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted on March 25, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

ATTEST:

_____
Deborah L. Elam
Acting City Clerk

APPROVED AS TO FORM:

/s/ Molly O'Toole
Molly O'Toole
Deputy City Attorney

Exhibit A – General Services Agreement with Roofing Constructors, Inc. dba Western Roofing Service

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AGREEMENT FOR SERVICES

THIS AGREEMENT is made and entered into this day of March, 2024, by and between the City of Livermore ("City"), a municipal corporation, and Roofing Constructors, Inc. dba Western Roofing Service ("Contractor"), a California corporation.

RECITALS

City requires services to provide annual and semi-annual roof inspection, preventative maintenance, and general rooftop housekeeping services, and on-call roof repair services for City facilities as needed.

Contractor warrants it possesses the distinct skills, qualifications, experience, and resources necessary to timely perform the services described in this Agreement. Contractor acknowledges City has relied upon these warranties to retain Contractor.

AGREEMENT

NOW, THEREFORE, City and Contractor hereby agree that the aforementioned recitals are true and correct and further agree as follows:

1. Retention as Contractor. City hereby retains Contractor, and Contractor hereby accepts such engagement, to perform the services described in Section 3 below subject to the terms and conditions in this Agreement.

2. Relationship of Parties – Independent Contractors. The relationship of the parties shall be that of independent contractors. Contractor and its employees are not City officers or employees. Contractor is responsible for the supervision and management of its employees, including any workers compensation insurance, withholding taxes, unemployment insurance, and any other employer obligations associated with the delivery of the services contemplated by this Agreement.

3. Description of Services. Contractor shall provide services to provide annual and semi-annual roof inspection, preventative maintenance, and general rooftop housekeeping services, and on-call roof repair services for City facilities as needed as more particularly set forth in Exhibit "A" (collectively "the Services").

4. Contractor's Responsibilities. Contractor shall:

(a) Diligently perform the Services in a manner commensurate with industry, professional, and community standards;

(b) Provide the resources necessary to complete the Services in a timely manner;

(c) Obtain a business license from the City of Livermore, and keep it in effect for the term of this Agreement;

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(d) Obtain and keep in effect all necessary licenses, permits, qualifications, insurance, and approvals legally and professionally required for Contractor to practice its profession and to provide the Services;

(e) Comply with all laws in effect that are related to Contractor and the Services;

(f) Coordinate the Services with Jason Calkins, Public Works Supervisor Facilities ("Project Manager"), or such other person designated as the Project Manager by City;

(g) Be available to the Project Manager, and other parties referred to Contractor by the Project Manager, to answer questions or inquiries related to the Services;

(h) Only invoice City for the Services rendered. Contractor's invoice shall be in writing and describe the Services performed for the payment requested. Contractor shall not submit an invoice to City more frequently than once a calendar month;

(i) Keep and maintain invoices and records related to the Services in an organized manner. At a minimum, the records must be kept for at least 3 years from the date of final payment to Contractor and must include time sheets, work progress reports, and other documentation to adequately explain all the Services invoiced for payment. Contractor shall make the invoices and records immediately available to City upon delivery of a written request to examine, audit, or copy them at City's place of business during normal business hours. Contractor shall give City 30 calendar-days' written notice prior to destroying the invoices and records and allow City an opportunity to take possession. If City wants them, Contractor and City shall coordinate their delivery to City in the most efficient manner possible;

(j) Prepare and submit a written report to the Project Manager, within 3 business-days of the Project Manager's written request, that identifies the Services completed and in progress, the charges incurred to date, and the anticipated cost to complete the remaining Services;

(k) Contractor shall correct, at its own expense, all errors in the Services. Should Contractor fail to make such correction in a timely manner, City may make the correction and charge the cost thereof to Contractor;

(l) If applicable, Contractor shall ensure that all work for compensation is taken in compliance with the requirements of the California Labor Code including but not limited to hours of labor, nondiscrimination, payroll records, apprentices, worker's compensation and prevailing wages. If applicable, Contractor shall comply with all prevailing wage laws, such as sections 1773, 1773.8, 1775, 1776, 1777.5, 1777.6, and 1813 of the California Labor Code and any other applicable wage and hour law. If any violation of prevailing wage law associated with this Agreement is deemed to have occurred by any court or administrative authority, Contractor shall forfeit to the City, as a penalty, the sum of fifty dollars ($50.00) for each calendar day, or portion thereof, for each laborer, worker, or mechanic employed, paid less than the applicable prevailing rates for any work done to accomplish the purposes of this Agreement; and,

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(m) Contractor's services provided pursuant to this Agreement shall comply with the Americans with Disabilities Act (ADA) of 1990, and all amendments thereto, as well as applicable regulations and guidelines issued pursuant to the ADA.

5. Compensation and Payment.

(a) The total compensation payable by City to Contractor for the Services **SHALL NOT EXCEED** the sum of $700,000 ("not-to-exceed amount"). City shall compensate Contractor for the Services rendered at the hourly rates or task amounts set forth in Exhibit "A" up to the not-to-exceed amount. Except as provided in the body of this Agreement, the hourly rates or task amounts are intended to be Contractor's only compensation for the Services and is inclusive of all costs of labor, licensing, permitting, travel expenses, overhead and administrative costs, and any-and-all other costs, expenses, and charges incurred by Contractor, its agents, and employees to provide the Services.

(b) City shall pay Contractor no later than 30 days after City receives a written invoice from Contractor and verifies the Services were performed for the payment requested.

6. Term. The term of this Agreement commences on April 1, 2024, and terminates upon the completion of the Services or March 31, 2027, whichever occurs first.

7. Termination by City. City may terminate any portion or all of the Services by giving Contractor at least 30 calendar-days written notice. Upon receipt of a termination notice, Contractor shall immediately stop all work in progress on the Services except where necessary to preserve the benefit of the work, and assemble the work on the Services for delivery to City on the termination date. All compensation for Services performed prior to the termination date shall be payable to Contractor in accordance with Section 5.

8. Ownership of Documents. All drawings, designs, data, photographs, reports and other items prepared or obtained by Contractor in the performance of the Services are City's property and Contractor shall deliver them to City upon demand.

9. Copyright and Right of Use. All items created by Contractor for City under this Agreement are works made for hire, and Contractor shall give City the copyright and all intellectual property rights to all items developed, prepared, and delivered as part of the Services. Contractor agrees that all aspects of the Services and items created thereby will be original works of creation and will not use, in whole or in part, any work created by any other party, except when expressly disclosed by Contractor to City and Contractor obtains a license to such items for the benefit of City. All licenses must be perpetual, world-wide, non-exclusive, and royalty free sufficient in scope to permit City's full use and enjoyment of its ownership rights in the items created by the Services.

10. Confidentiality. Contractor shall not disclose any confidential or proprietary information received from City to anyone except Contractor's employees who require access to the information to perform the Services. This obligation shall survive

termination and remain in full force and effect until the information, and any copies thereof, are destroyed or returned to City.

11. Defense, Indemnity, and Hold Harmless. To the fullest extent permitted by law, Contractor shall hold harmless, indemnify, and defend with counsel selected by the City or otherwise acceptable to the City, the City and its elected and appointed officials, officers, directors, employees, agents and designated volunteers from and against any and all liability, loss, damage, claims, expenses, and costs (including without limitation, attorney's fees and costs and fees of litigation) (collectively, "Liability") of every nature arising out of or in connection with Contractor's performance of the services contemplated by this Agreement, or in connection with Contractor's failure to comply with any of its obligations contained in this Agreement, except for such Liability caused by the sole active negligence or willful misconduct of City. Contractor's obligations to hold harmless, indemnify, and defend shall not be excused because of Contractor's inability to evaluate Liability or because Contractor evaluates Liability and determines that Contractor is not liable to the claimant. These obligations are independent of, and shall not in any way be limited by, the minimum insurance obligations contained in this Agreement. These obligations shall survive the completion or termination of this Agreement. Contractor must respond within 30 days to the tender of any claim for defense and indemnity by the City.

(a) Modification for Construction Contracts. To the extent this Agreement is a "construction contract" covered by California Civil Code section 2782, then Contractor's duty to indemnify shall not apply in a manner prohibited by California Civil Code section 2782.

(b) Modification for Design Professional Services. To the extent this Agreement is for "design professional services" defined in California Civil Code section 2782.8, then Contractor's duties to defend and indemnify shall only apply to the extent provided for in California Civil Code section 2782.8(a), unless section 2782.8(a) is not applicable for one of the reasons set forth in 2782.8(e).

12. Insurance. Contractor shall procure and maintain insurance during the term of this Agreement in the amounts and under the terms set forth in Exhibit "B" against claims that may arise from or in connection with this Agreement and performance of the Services. Upon reasonable written notice, Contractor shall comply with any changes in the amounts and terms of insurance as may be required from time-to-time by City's Risk Manager.

13. Acceptance of Final Payment. Contractor's acceptance of final payment will release City from any and all claims and liabilities for compensation under this Agreement.

14. Acceptance of Work. City's acceptance of, or payment to Contractor for, the Services does not release Contractor from its responsibility for the accuracy, completeness, or competency of the Services, nor do the actions constitute an assumption of Contractor's responsibility or liability by City for any defect or error in the Services.

15. Conflict of Interest. Contractor represents that no City employee or official has a financial interest in Contractor. Contractor shall not offer, encourage, or accept any

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financial interest in any part of Contractor's business by or from a City employee or official during the term of this Agreement or as a result of being awarded this Agreement. If any of the Services are paid by reimbursement from an agreement between City and a private party, Contractor represents that it has not performed any work for that private party during the 12-month period prior to the execution of this Agreement, and that it shall not negotiate, offer or accept any contract for services from that party during the term of this Agreement.

16. Economic Disclosure. Contractor shall comply with City's local conflict of interest code and the Political Reform Act, and prepare and file an economic disclosure statement if the Services involve making, or participation in making, decisions which may have a material effect on the Contractors' financial interest. While it is Contractor's sole responsibility to evaluate its conflicts of interest, the Contractor nevertheless agrees to prepare and file an economic disclosure statement if requested by City.

17. Non-Exclusive Agreement. This is a non-exclusive agreement. City reserves the right to provide, and to retain other Contractors to provide, services that are the same or similar to the Services described in this Agreement.

18. No Assignment. Contractor shall not assign or subcontract any of the Services without City's prior written consent. For the purposes of this section, a change of fifty percent or more in the ownership or control of Contractor constitutes an assignment.

19. Remedies. All remedies permitted or available under this Agreement, or at law or in equity, are cumulative and alternative, and the invocation of a right or remedy will not be construed to waive or elect a remedy with respect to any other available right or remedy. As a condition precedent to commencing legal action involving a claim or dispute against City arising from this Agreement, the Contractor must present a written claim to City in accordance with Chapter 3.42 of the Livermore Municipal Code.

20. Construction of Language. The terms and conditions in this Agreement have been arrived at through negotiation and each party had a full and fair opportunity to review and revise this Agreement with legal counsel. Any ambiguity in this Agreement will not be resolved against either party as the drafting party. In the event of an inconsistency or conflict between the language in the body of the Agreement and an attachment hereto, the language in the body of the Agreement controls.

21. Entire Agreement; Modification. This Agreement supersedes all other agreements, whether oral or written, between the parties with respect to the Services. Any modification to this Agreement must be in writing and signed by both parties. In the event the original of this Agreement is lost or destroyed, an archival copy maintained by City can be used in place of the original for all purposes with the same effect as if it was the original.

22. Notice. Notices under this Agreement must be delivered to the addresses below by deposit in the United States mail or by overnight delivery service, with postage prepaid and delivery confirmation:

23.

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TO CITY: Attention: Jason Calkins
City of Livermore
3500 Robertson Park Road
Livermore, California 94550

TO CONTRACTOR: Attention: Sean Carr
Roofing Constructors, Inc.
d/b/a Western Roofing Service
15002 Wicks Blvd
San Leandro, CA 94577

24. Waiver. Failure to insist upon the strict performance of any term or conditions in this Agreement, no matter how long the failure continues, is not a waiver of the term or condition and does not bar the right to subsequently demand strict performance. To be effective, a waiver must be in writing and signed by the non-breaching party.

25. Severability. If a court of competent jurisdiction determines a provision in this Agreement is invalid, void, or unenforceable, the remaining provisions will nevertheless continue in full force and effect without being impaired in any way.

26. Survival. The terms, conditions, and obligations in Sections 8, 9, 10, and 11 shall survive the completion or termination of this Agreement.

27. Electronic Signatures. By signing this document, you are agreeing that you have reviewed this disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

28. Counterparts. This Agreement may be executed and delivered in one or more counterparts, each of which will be deemed to be an original copy of this Agreement, and all of which, when taken together, will be deemed to constitute one and the same agreement. The facsimile, email, or other electronically delivered signatures of the Parties shall be deemed to constitute original signatures, and facsimile or electronic copies hereof shall be deemed to constitute duplicate originals and shall be valid and effective for all purposes.

****

Signatures and Attachment List on the Next Page

EXHIBIT A

In concurrence and witness whereof, and in recognition of the mutual consideration provided therefore, the parties have executed this Agreement, effective on the date first written above.

CONTRACTOR: **Dated:**

DocuSigned by:
Kristopher Makie
F36365105D70413...

3/8/2024 | 5:30 PM PST

By: Kristopher Makie
Title: COO

CITY OF LIVERMORE: **Dated:**

Marianna Marysheva
City Manager

APPROVED AS TO FORM:

DocuSigned by:
Molly O'Toole
A006EFED3B6E4A5...

Deputy/Assistant/City Attorney

APPROVED AS TO INSURANCE:

DocuSigned by:
Amber Hatfield
12BC7F4D88224F6...

Risk Manager/Analyst

Attachments:

Exhibit A – Scope of Work
Exhibit B – Insurance Requirements
Exhibit C - DIR Compliance Certification

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Exhibit A
Scope of Services

Roofing Constructors, Inc. dba Western Roofing Service ("Contractor") shall provide all necessary labor, materials, vehicles, equipment, and supplies to perform the following services:

1. Roof Inspection Services ("Task One")

    a. Contractor shall perform the following roof inspection services:
        i. Visually inspect roof membranes and roof surface conditions; and
        ii. Visually inspect the flashing systems including, but not limited to:
            - The metal edge system;
            - Base flashings on equipment and adjoining walls;
            - Counterflashing and termination details;
            - Soil stacks and vents; and
            - Roofing details for rooftop projections and equipment, such as pitch pans, HVAC equipment, skylights and access hatches.

    b. Visual inspections do not include inspections for internal or latent water damage or mold growth or detection or identification of mold or other latent conditions.

    c. Contractor shall perform visual inspections once per year at all sites specified in the "Service Locations and Pricing" chart contained in this Exhibit A ("General City Sites") and twice per year at all sites specified in the "Service Locations and Pricing – Water Resources Division" chart contained in this Exhibit A ("WRD Sites").

2. Preventative Maintenance Services ("Task Two")

    a. Contractor shall perform certain preventative maintenance services on:

        i. Flashing components and details, including, without limitation:
            - Patching minor flashing defects and kick holes;
            - Reinforcing open flashing laps;
            - Sealing open metal edge laps and open flanges within reason;
            - Sealing open coping joints;
            - Sealing expansion joint laps and re-securing and/or sealing intermittent fasteners that have backed out;
            - Topping off pitch pans;
            - Caulking storm collars;
            - Resealing intermittent voids in termination bar and counterflashing; and
            - Informing City if Contractor observes that any extensive repairs to flashing components and details are required.

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ii. Roof membranes, including, without limitation:
- Repairing intermittent splits, tears, open laps and breaks in the membrane;
- Patching any fractured blisters or those in danger of fracture due to traffic; and
- Informing City if Contractor observes that extensive repairs to the roof membranes are required.

iii. Drains, gutters and scuppers, including, without limitation:
- Removing and cleaning debris from drains, gutter systems, and downspouts;
- Tightening drain bolts and clamping rings (if possible);
- Repairing strip-in around drains and scuppers;
- Re-securing gutters and seal open gutter joints; and
- Informing City if Contractor observes missing drain strainers.

b. Preventative maintenance does not include:
   i. Repairs or maintenance of any building component other that the roofing system;
   ii. Remediation, detection or abatement of mold; or
   iii. Recoating or other significant repair to, or replacement of, the roof membrane.

c. Contractor shall perform these preventative maintenance services once per year at all General City Sites and twice per year at all WRD Sites.

d. Contractor shall schedule annual and biannual preventative maintenance services with the Project Manager a minimum of seven (7) business days in advance of performing said services.

3. General Rooftop Housekeeping Services ("Task Three")

a. Contractor shall:
   i. Remove debris (e.g. leaves, branches, paper and similar items) from the roof membrane and drainage areas; and
   ii. Dispose of debris at City-approved locations.

b. General rooftop housekeeping does not include removal of obsolete HVAC components, any construction materials left by other trades, and other equipment left on the roof.

c. Contractor shall perform these rooftop housekeeping services once per year at all General City Sites and twice per year at all WRD Sites.

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4. Roof Repair Services ("Task Four")
   a. Contractor shall, upon the prior direction of the Project Manager, repair roof surfaces that develop leaks or have become damaged due to natural disasters or normal wear and tear.
   b. Contractor shall not perform roof repair services without the prior authorization and direction of the Project Manager.
5. The above-mentioned roof inspection, preventative maintenance, general rooftop housekeeping services, and roof repair services do not include extensive repairs, restoration or replacement of a deteriorated roof, such as recoating or resurfacing of the flood coat or the reflective coat of the roofing system. If such steps are necessary, Contractor shall notify the Project Manager and provide recommendations to replace or bring the roof to a maintainable condition, as appropriate.

Compensation

1. City shall compensate Contractor for Roof Inspections, Preventative Maintenance, and General Rooftop Housecleaning Services according to the tables below entitled "Service Locations and Pricing" and "Service Locations and Pricing – Water Resources Division." Compensation shall be granted after satisfactory completion of the work.

Service Locations and Pricing

Address	Building	Sq Ft.	Annual Service	City Code
680 Terminal Circle	Airport Admin Bldg.	4,000	$1,882.00	2120
299 West Jack London Blvd.	Gene Maestas Hanger	18,500	$3,644.00	2120
300 West Jack London Blvd.	Office Building	2,600	$1,506.00	2120
180-196 Airway Blvd.	Office Buildings	17,300	$3,036.00	2120
	Airport (2120) Total		**$10,068.00**	
1052 S. Livermore Ave.	City Hall	7,267	$4,786.00	7792
1052 S. Livermore Ave.	City Hall	16,338	$7,808.00	7792
1052 S. Livermore Ave.	City Hall	4,955	$1,683.00	7792
1188 S. Livermore Ave.	Civic Center Library	28,850	$5,440.00	1901
1188 S. Livermore Ave.	Civic Center Library	26,618	$3,031.00	1901
330 Airway Blvd.	Fire Station 10	4,382	$1,652.00	8005
4550 East Ave.	Fire Station 6	9,232	$1,493.00	8005
4550 East Ave.	Fire Station 6	1,050	$993.00	8005
4550 East Ave.	Fire Station 6	3,505	$953.00	8005
951 Rincon Ave.	Fire Station 7	10,000	$3,974.00	8005
5750 Scenic Ave.	Fire Station 8	255	$1,496.00	8005
5750 Scenic Ave.	Fire Station 8	7,588	$1,537.00	8005
1919 Cordoba St.	Fire Station 9	831	$1,553.00	8005
1919 Cordoba St.	Fire Station 9	7,140	$1,592.00	8005
1110 S. Livermore Ave.	Police Facilities	17,775	$5,669.00	6001
1110 S. Livermore Ave.	Police Facilities	3,094	$3,147.00	6001
1110 S. Livermore Ave.	Police Facilities	15,193	$5,638.00	6001
725 Rincon Ave.	Rincon Library	4,884	$2,947.00	1905
998 Bluebell Ave.	Springtown Library	2,648	$1,541.00	1904
998 Bluebell Ave.	Springtown Library	560	$762.00	1904
3333 Pacific Ave.	Multi Service Center	3,761	$2,804.00	501(

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EXHIBIT A

Address	Building	Sq Ft.	Annual Service	City Code
3333 Pacific Ave.	Multi Service Center	8,263	$4,107.00	5010
141 N Livermore Ave	141 N Livermore Ave	1,350	$1,406.00	7792
145 - 149 N Livermore Ave	145 - 149 N Livermore Ave	2,769	$1,455.00	7792
2400 First St.	Bankhead Performing Arts Theatre	17,950	$8,300.00	6990
926 N. L St.	Duarte Garage	5,500	$1,694.00	7792
	Caretaker's House	700	$1,139.00	7792
	Railroad Depot	1,203	$2,646.00	7792
	Railroad Depot	3,750	$2,675.00	7792
2155 Third St.	Carnegie Library	2,700	$1,541.00	7792
3131 Pacific Ave.	The Barn	8,800	$1,530.00	7992
	Shea Plaza Restroom Facility	600	$1,137.00	7994
241 N M St.	241 N M St - Main Building	2,640	$785.00	7792
241 N M St.	241 N M St - Shed	1,040	$767.00	7792
2350 Railroad Ave.	Downtown Parking Facility	420	$1,321.00	7794
3500 Robertson Park Road	MSC Building 1 - Administration Building	8,176	$3,301.00	7793
3500 Robertson Park Road	MSC Building 2 - Storage	5,821	$2,698 .00	7793
3500 Robertson Park Road	MSC Building 3 - Police Evidence Storage	3,700	$2,674.00	7793
3500 Robertson Park Road	MSC Building 4 - Covered Parking	6,232	$2,703.00	6001
3500 Robertson Park Road	MSC Building 5 - Shop	5,640	$2,696.00	7793
3500 Robertson Park Road	MSC Building 6 - Shop	4,760	$2,686.00	7793
3500 Robertson Park Road	MSC Building 7 - Covered Parking	6,273	$2.703.00	7793
3500 Robertson Park Road	MSC Building 8 - Shop	6,232	$2,702.00	7793
3500 Robertson Park Road	MSC Building 9 - Storage	4,525	$2,684.00	7793
2647 Arroyo Rd.	Ravenswood-Main House	4,250	$2,810.00	7792
2647 Arroyo Rd.	Ravenswood-Cottage/Bedroom House	2,000	$2,784.00	7792
2647 Arroyo Rd.	Ravenswood-Carriage House	850	$1,391.00	7792
2647 Arroyo Rd.	Ravenswood-Gift Shop/Tank Building	480	$1,386.00	7792
2647 Arroyo Rd.	Ravenswood-Gift Shop/Tank Building	400	$1,385.00	7792
2647 Arroyo Rd.	Ravenswood-Restrooms	650	$1,453.00	7792
455 Olivina Ave.	Hagemann Farm - Red Barn	2,100	$1,067.00	7792
455 Olivina Ave.	Hagemann Farm - Barn 1	4,500	$3,464.00	7792
455 Olivina Ave.	Hagemann Farm - Feed Shed 1	150	$785.00	7792
455 Olivina Ave.	Hagemann Farm - Feed Shed 2	110	$784.00	7792
455 Olivina Ave.	Hagemann Farm - Community Shed	410	$788.00	7792
455 Olivina Ave.	Hagemann Farm - Goat Shed	135	$785.00	7792
455 Olivina Ave.	Hagemann Farm - Barn 2	2,600	$2,635.00	7792
455 Olivina Ave.	Hagemann Farm - Waterhouse Shed	110	$784.00	7792
455 Olivina Ave.	Hagemann Farm - House Shed	250	$786.00	7792
455 Olivina Ave.	Hagemann Farm - Main House	2,500	$2,893.00	7792

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Address	Building	Sq Ft.	Annual Service	City Code
455 Olivina Ave.	Hagemann Farm - Tractor Shed	210	$786.00	7792
		General Fund Total	**$142,615**	
		Total for Airport (2120) and General Fund	**$152,683.00**	

Service Locations and Pricing – WRD Division

Address	Building	Sq Ft.	First Service	Second Service	City Code
101 W. Jack London Blvd.	Lab Building	6,858	$2,775.00	$2,775.00	2323
101 W. Jack London Blvd.	Water Building	3,251	$1,418.00	$1,418.00	2323
101 W. Jack London Blvd.	Digester Building	1,825	$1,531.00	$1,531.00	2323
101 W. Jack London Blvd.	Solids Handling Building	3,100	$1,041.00	$1,041.00	2323
101 W. Jack London Blvd.	Maintenance Building	4,500	$2,112.00	$2,112.00	2323
101 W. Jack London Blvd.	Greenhouse 1, 2, 3	31,875	$3,059.00	$3,059.00	2323
101W. Jack London Blvd.	Blower Building	1,720	$1,150.00	$1,150.00	2323
101 W. Jack London Blvd.	UV Building	2,129	$1,437.00	$1,437.00	2323
101 W. Jack London Blvd.	LAVWMA Building	294	$759.00	$759.00	2323
101 W. Jack London Blvd.	Admin Building	8,250	$4,107.00	$4,107.00	2323
101 W. Jack London Blvd.	RO Building	3,624	$2,112.00	$2,112.00	2323
101 W. Jack London Blvd.	Tertiary Building	4,615	$2,189.00	$2,189.00	2323
101 W. Jack London Blvd.	RAS/WAS Building	180	$757.00	$757.00	2323
101 W. Jack London Blvd.	Hypochlorite Structure	1,200	$1,092.00	$1,092.00	2323
Undisclosed	Airway Pump Station	1800	$1,625.00	$1,625.00	2323
Undisclosed	Altamont Pump Station	1000	$1,864.00	$1,864.00	2323
Undisclosed	Vasco Pump Station	2400	$1,920.00	$1,920.00	2323
Undisclosed	Oakville Pump Station	1000	$1,330.00	$1,330.00	2323
	2323 Total	**$32,278.00**		**$32,278.00**	
	Grand Total for all Locations and Services			**$217,239.00**	

2. Roof Repair Services (Task Four) shall be compensated at the following rates:

Standard Labor Rates (Mon. Friday 7am – 3:30pm)	$140.00 per hour per worker
Saturday and Off Hours	$170.00 per hour per worker
Sunday / Holiday	$200.00 per hour per worker
Material	Invoice plus shipping/handling + 25% markup
Equipment Rental	Invoice plus shipping/handling + 25% markup
Truck/Van Fuel Surcharge	$20 per hour per crew

3. Beginning during the second year of the term (i.e., April 1, 2025), the hourly rates specified in the table for Task Four above may be increased once annually, provided that the hourly rates are not increased by more than the percentage increase in the Consumer Price Index for All Urban Consumers ("CPI-U") in the San Francisco-Oakland-Hayward, California area from the prior calendar year's CPI-U rate in December.

    a. For example, if Contractor elects to increase the hourly rates for the period April 1, 2025 through March 31, 2026, the rates shall increase no more than the applicable CPI-U rate as of December 2024.

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4. Contractor shall deliver all invoices via email to maintenance-request@livermoreca.gov.
5. Contractor shall submit legible, written receipts for all materials for reimbursement upon request by the Project Manager.
6. City will not compensate Contractor for work done in advance of City approval.

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EXHIBIT B

INSURANCE REQUIREMENTS

Minimum Scope and Limits of Insurance

Consultant/Contractor shall maintain limits no less than:

1. Commercial General Liability, including operations, products and completed operations, as applicable:
   $3,000,000 per occurrence/**$6,000,000** aggregate for bodily injury, personal injury, and property damage. If Commercial General Liability or other form of insurance with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability:
   $1,000,000 per accident for bodily injury and property damage.
3. Workers' Compensation and Employer's Liability:
   Statutory limits as required by the State of California including **$1,000,000** Employers' Liability per accident, per employee for bodily injury or disease. A waiver of subrogation is required for Workers' Compensation insurance. If Consultant/Contractor is a sole proprietor, then they must sign "Contractor Release of Liability."

Deductibles and Self-Insured Retention

All self-insured retentions (SIR) must be disclosed to Risk Management for approval and shall not reduce the limits of liability. Policies containing any self-insured retention (SIR) provision shall provide, or be endorsed to provide, that the SIR may be satisfied by either the named insured or the City of Livermore. The City of Livermore reserves the right to obtain a full certified copy of any insurance policy and endorsements. Failure to exercise this right shall not constitute a waiver of right to exercise later.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best rating of no less than A: VII and accepted to do business in the State of California, unless otherwise acceptable to the City of Livermore.

Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The City of Livermore, its officers, officials, employees, and designated volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the Consultant/Contractor; or automobiles owned, leased, hired or borrowed by the Consultant/Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City of Livermore, its officers, officials, employees, or volunteers.
2. The limits of insurance required in this agreement may be satisfied by a

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combination of primary and umbrella or excess insurance. The additional insured coverage under the Consultant's/Contractor's policy shall be primary and non-contributory and will not seek contribution from the City's insurance or self-insurance and shall be at least as broad as ISO Form CG 20 10 04 13. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the City of Livermore before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

3. Any failure to comply with reporting or other provisions of the policy, including breaches of warranties, shall not affect coverage provided to the City of Livermore, its officers, officials, employees, or volunteers.
4. The Consultant's/Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party before expiration of the policy unless notice is delivered in accordance with policy provisions.
6. It shall be a requirement under this agreement that any available insurance proceeds broader than, or in excess of, the specified minimum insurance coverage requirements and/or limits shall be available to the additional insured. Furthermore, the requirements for coverage and limits shall be (1) the minimum coverage and limits specified in this agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named insured; whichever is greater.
7. Certificate Holder section of the insurance certificate should read: City of Livermore, 1052 S. Livermore Avenue, Livermore, CA 94550.

Verification of Coverage

Consultant/Contractor shall furnish certificates of insurance and endorsement(s) effecting coverage to the City of Livermore for approval. The endorsements shall be on forms acceptable to the City of Livermore. All certificates and endorsements are to be received and approved by the City of Livermore before work commences. The City of Livermore reserves the right to require complete and certified copies of all insurance policies required by this Agreement.

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CITY OF LIVERMORE

DEPARTMENT OF INDUSTRIAL RELATIONS COMPLIANCE CERTIFICATION
Senate Bill 854

• No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

• No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

• This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

In accordance with California Labor Code as amended through Senate Bill SB 854, prior to commencement of the Contract, all Contractors are required to register, and maintain active registration throughout the duration of the contract with the California Department of Industrial Relations (DIR). For information regarding registration, please go to: http://www.dir.ca.gov/

I, the Bidder, certify that:

> "I am aware of the provisions of Senate Bill SB 854 and subsequent DIR regulations, which require Contractors/Vendors to comply with all labor compliance requirements including but not limited to prevailing wage requirements, Labor Code sections 1725.5, 1771.1(a), 1774-1776, 1777.5, 1813, 1815, Public Works Contractor Registration Program, Electronic Certified Payroll Records to Labor Commissioner, and other requirements described in the DIR website. I will comply with such provisions before commencing the performance of the work of this contract, and maintain compliance throughout the completion of said contract."

Signature	02/23/2024 Date
Veronica Iniguez Print Name	Western Roofing Roofing Business Name
Payroll Administrator Title	180533 CSLB License Number
	1000000717 DIR Registration Number

LIVERMORE
CALIFORNIA

CITY COUNCIL STAFF REPORT **ITEM NO. 5.3**

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Judy Erlandson, Acting Public Works Director

SUBJECT: Resolution authorizing execution of an agreement with the Alameda County Flood Control and Water Conservation District, Zone 7 for participation in the 2022 Urban Community Drought Relief Local Projects Grant Program.

RECOMMENDED ACTION

Staff recommends the City Council adopt a resolution authorizing the City Manager to execute an agreement with the Alameda Flood Control and Water Conservation District, Zone 7 for participation in the Urban Community Drought Relief Local Project Grant Program.

SUMMARY

In June 2022 Zone 7 applied for the 2022 Urban Community Drought Relief Program through the California Department of Water Resources (DWR) on behalf of the City of Livermore and other water service agencies located within the Zone 7 service area.

In June 2023, Zone 7 notified the City that the Citywide Turf Reduction project and Recycled Water Fill Station project were approved for funding. Pursuant to the guidelines of the grant, these projects are required to be completed by December 31, 2026. Commencement of both City projects will begin in Fiscal Year 2024-25.

Staff recommends the City Council adopt a resolution authorizing the City Manager to execute an Agreement with the Alameda Flood Control and Water Conservation District, Zone 7 for participation in the Urban Community Drought Relief Local Project Grant Program. The Agreement is scheduled for the Zone 7 Board's April 17, 2024 consent agenda. Full execution of the Agreement will occur after Zone 7 Board approval.

DISCUSSION

The Urban Community Drought Relief Program is intended to support drought resilience planning, water conservation, and other activities that provide reductions in water consumption or improvements to water supply reliability. Grant application acceptance required a minimum request of $3 million in a single

application. Smaller projects were allowed to be bundled together to meet the $3 million minimum. A bundled application required a single primary Grantee to enter into a grant agreement with DWR. Zone 7 is acting as the primary Grantee on behalf of the City of Dublin, Alameda County, and the City of Livermore.

In June 2023, Zone 7 notified the City that the Citywide Turf Reduction project and Recycled Water Fill Station project were approved for funding. Pursuant to the guidelines of the grant, these projects are required to be completed by December 31, 2026. Commencement of both City projects will begin in FY 2024-25.

The Citywide Turf Reduction Project will help the City reduce non-functional turf at various City properties, thereby reducing the demand for potable water. Approximately 109,000 square feet of turf at City owned sites will be replaced. The turf will be replaced with a drought tolerant landscape and incorporate drip irrigation at multiple locations to be determined. This project will reduce water demand by approximately 21 acre-feet per year.

The Recycled Water Fill Station project will consist of an automated self-service recycled water fill station that will allow residential customers access to recycled water for irrigation and other non-potable uses. The automated fill station will provide a permanent year-round water source for residents. This project is expected to increase recycled water use locally by approximately 18 acre-feet per year.

FISCAL AND ADMINISTRATIVE IMPACTS

The Urban Community Drought Relief Program requires a minimum non-state cost share of 25% of the total application cost for each local project. The cost of the Citywide Turf Reduction project is $350,000. The grant award is $262,500 with a required cost share of $87,000. Funding for the local cost share is in the General Fund Landscape Maintenance account 7102-43130.

The cost of the Recycled Water Fill Station project is $400,000. The grant award is $300,000, with a required cost share of $100,000. Funding for the local cost share is in the 230 Sewer Fund account 43130. There will be no additional impact to the General Fund or other city funds.

COMMUNITY PILLAR

2: Environmental Stewardship

GOAL

1: Lead efforts to implement the updated Climate Action Plan in collaboration with internal and external partners.

ATTACHMENTS

1. Award Letter
2. Resolution
3. Exhibit A - Agreement

Prepared by: Laura Mayate-DeAndreis
Management Analyst II

Approved by:

Marianna Marysheva
City Manager

Fiscal Review by:

Tina Olson
Administrative Services Director

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY
GAVIN NEWSOM, *Governor*

DEPARTMENT OF WATER RESOURCES
P.O. Box 942836
Sacramento, CA 94236-0001
(916) 653-5791

June 12, 2023

Kevin Padway
Water Resources Planner
Zone 7 Water Agency
100 N. Canyons Parkway
Livermore, CA 94551

Award Notification for Urban Community Drought Relief Grant Program

Dear Kevin Padway:

Congratulations! We are pleased to inform you that the following projects, filed by Zone 7 Water Agency, have been awarded **$2,242,500** by the Department of Water Resources (DWR) for the Urban Community Drought Relief Grant Program:

- **$262,500** was awarded to the Citywide Turf Reduction Projects
- **$300,000** was awarded to the Recycled Water Fill Station
- **$1,380,000** was awarded to the Dublin Irrigation System Upgrades
- **$300,000** was awarded to the Fire Dept. Training Water Recirculation System

Costs incurred after June 30, 2022 will be eligible for grant reimbursement. This award is conditioned upon the execution of a Grant Agreement between DWR and your agency. Please see the Agreement Template for your reference.

Your timely attention is directed to the following requirements:

Within 14 calendar days of the date of this award letter:

Award Acceptance - Please submit a letter or e-mail signed by the authorized representative (agreement signatory) confirming your agency as the Grantee to accept the grant award in the amount of **$2,242,500**. This letter/e-mail should also confirm the proper billing address for your organization (where reimbursement checks will be sent).

Electronic Signatures - DWR uses DocuSign to process signatures electronically to expedite all grant-related documents requiring a signature. In order for DWR to send documents to you via DocuSign, we need your permission and consent. If you consent to the use of DocuSign, please send DWR a letter on official letterhead signed by the authorized representative, consenting to the use of DocuSign for all transactions related to this award (see attached sample). If you prefer not to use electronic signatures, DWR can send documents for original (wet) signatures via email or mail, but this can delay the process significantly, especially during situations such as the COVID-19 public health emergency.

Following receipt of the award acceptance, DWR will provide you with a draft agreement and work with you to finalize and execute the agreement. Your timely attention to these requirements is critical to execute the Grant Agreement; failure to do so may result in DWR revoking the grant award. Please submit the required information in the time periods specified to urbandrought@water.ca.gov. The subject line of the email should include “Zone 7 Water Agency

ANL Items".

Please contact Ashley Gilreath at Ashley.Gilreath@water.ca.gov or (916) 902-6717 or Stephanie Hara at Stephanie.Hara@water.ca.gov or (916) 902-6992 for any questions regarding the required materials.

Again, congratulations to you and your Local Project Sponsors on this well-deserved grant award. Our team appreciates your time and effort to respond to this grant solicitation process and we will be reaching out in coming months to get your feedback. We look forward to working with you to complete these drought relief projects to build water resilience in your communities.

Sincerely,

Carmel Brown

Manager, Financial Assistance Branch

Division of Regional Assistance

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION AUTHORIZING EXECUTION OF AN AGREEMENT WITH ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7 FOR PARTICIPATION IN THE 2022 URBAN COMMUNITY DROUGHT RELIEF LOCAL PROJECT GRANT PROGRAM

In June 2022, Alameda County Flood Control and Water Conservation District, Zone 7 (Zone 7) applied for the 2022 Urban Community Drought Relief Grant Program through the California Department of Water Resources (DWR) that included projects from and on behalf of the City of Livermore. The program supports drought resilience planning, water conservation and other activities that provide reductions in water consumption or improvements to water supply reliability. The program requires a minimum non-state cost share of 25% of the total application cost for each local project.

In June 2023, DWR awarded Zone 7 funding for the City of Livermore Citywide Turf Reduction project in the amount of $262,500 with a cost sharing requirement of $87,500; and the Recycled Water Fill Station project in the amount of $300,000, with a cost sharing requirement of $100,000.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore that it hereby:

1. Authorizes the City Manager to execute an agreement with Alameda County Flood Control and Water Conservation District, Zone 7 for the 2022 Urban Community Drought Relief Local Project Grant Program, in substantially the same form as the attached Exhibit A, which is incorporated by this reference.

2. Authorizes the City Manager to take whatever actions are necessary and appropriate to carry out the purpose and intent of this Resolution.

On motion of Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted on March 25, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

ATTEST:

_____
Deborah L. Elam
Acting City Clerk

APPROVED AS TO FORM:

/s/ Tara Mazzanti
Tara Mazzanti
Assistant City Attorney

Exhibit A – Agreement with Alameda County Flood Control and Water Conservation District, Zone 7

AGREEMENT BETWEEN ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7 AND CITY OF LIVERMORE - 2022 URBAN COMMUNITY DROUGHT RELIEF LOCAL PROJECT SPONSOR AGREEMENT

This Local Project Sponsor Agreement ("Agreement") is entered into on this _____ day of _____, 2024, between Alameda County Flood Control and Water Conservation District, Zone 7 ("Zone 7") and the City of Livermore (hereinafter referred to as Local Project Sponsor Grantee "LPS"). Zone 7 and LPS are collectively referred to as the "Parties," and each individually as a "Party."

Recitals

WHEREAS, in 2022 Zone 7 applied for the 2022 Urban Community Drought Relief Grant Program through the California Department of Water Resources ("State Grant"); and

WHEREAS, said application included projects from multiple local project sponsors in the Livermore-Amador Valley and was submitted on their behalf; and

WHEREAS, California Department of Water Resources ("DWR") awarded Zone 7, $562,500 in funding for LPS's drought relief project along with cost sharing requirement of $187,500; and

WHEREAS, on November 27, 2023, Zone 7 executed a grant agreement between DWR and Zone 7 titled "GRANT AGREEMENT BETWEEN THE STATE OF CALIFORNIA (DEPARTMENT OF WATER RESOURCES) AND ZONE 7 WATER AGENCY AGREEMENT NUMBER 4600015378 URBAN COMMUNITY DROUGHT RELIEF GRANT" (the "State Agreement"), which is attached hereto and incorporated herein as Attachment 1; and

WHEREAS, two of the projects funded with the State Agreement are the "Recycled Water Fill Station Project" and the "Citywide Turf Reduction Project" (hereinafter collectively referred to as "Project") proposed by the LPS, with an estimated total project costs of $750,000 collectively; and

Agreement

NOW, THEREFORE, IT IS HEREBY AGREED BETWEEN THE PARTIES AS FOLLOWS:

The recitals hereto are true and correct and are incorporated into the body of this Agreement as though set forth in full.

1. Term

This Agreement will be in effect from the date of execution until the State Agreement between the DWR and Zone 7 is terminated, or when all the Parties' obligations under this Agreement are fully satisfied, whichever occurs later.

Notwithstanding the date on which this Agreement is executed, Project costs incurred by the LPS after June 30, 2022, to the extent they are eligible for funding under and otherwise compliant with the State Grant and State Agreement, are eligible for reimbursement under this Agreement. All activities to implement the Project must be completed by December 31, 2026 to be eligible for State Grant funding.

2. Project, Subaward and Cost Share

a) Under the terms of this Agreement, the LPS will implement the Project as more particularly described in Attachment 1, and Zone 7 will disburse up to $562,500 of the State Grant to the LPS in accordance with the Grant Agreement. Said disbursements will only be made after Zone 7 receives such funds from DWR. The LPS will provide and document the cost share expenditures as required in the State Agreement.

b) Local Project Grantee Cost Share is required to fulfill a local cost share (non-State funds) in the amount of $187,500 of the total estimated total project costs of $750,000, as set forth in Exhibit B to the State Agreement (Budget). Required Cost Share must be for Eligible Project Costs directly related to the Project as set forth in Exhibit A to the State Agreement (Work Plan), incurred after June 30, 2022.

3. Zone 7 Obligations

a. Zone 7 will undertake and complete administrative and management responsibilities relating solely to Grant Administration, in accordance with the State Agreement attached hereto as Attachment 1, under "Exhibit A – Workplan – Grant Administration," that are not related solely to Local Projects.

b. Zone 7 shall disburse grant funds as required or permitted by the State Agreement. Notwithstanding the foregoing, Zone 7 is not obligated to disburse any funds to the LPS until such grant funds are authorized and disbursed from DWR to Zone 7.

c. Zone 7 will promptly notify the LPS of any notices given or actions taken by DWR if such notices or actions are likely to affect LPS's performance, duties, obligations or funding under this Agreement, including but not limited to notices from DWR regarding LPS's invoices under Section 8 of the State Agreement or alleged default related to the Project under Section 11 of the State Agreement.

4. LPS Obligations

a. The LPS is, and at all times will continue to be, in full compliance with the terms and conditions of the State Agreement as a recipient of the State Grant for its particular project. LPS shall be responsible for all of Grantee's responsibilities pursuant to the State Agreement as if LPS were Grantee, including but not limited to those specific responsibilities discussed in this Agreement, except otherwise expressly stated in this

Agreement. LPS understands and agrees that for the terms and conditions of the State Agreement which pertain to the Project, are hereby passed through to, and adopted by LPS as obligations of LPS, excepting only Zone 7's obligations as defined in paragraph 3 of this Agreement.

b. The LPS is solely responsible for all Project costs, including any amount exceeding the project budget of $750,000, and submitting eligible costs for reimbursements as per the terms of the State Agreement. The LPS is required to maintain all financial records associated with the total project cost for inclusion in the final project report.

c. In accordance with the State Agreement, the LPS may submit invoices for expenses incurred after July 1, 2022 for grant reimbursement and to meet cost share requirements.

d. The LPS hereby assumes responsibility for submitting Post-Performance Reports as required under Section 13.D of the State Agreement. Reports will be sent by LPS to Zone 7 within sixty calendar days after the first operational year of the Project and annually for a total of 3 years following Project completion, for submittal to DWR .

e. The LPS hereby assumes responsibility for the following as required under Section 14 of the State Agreement; (a) Operating and maintaining facilities and structures of the Project, (b) all costs for the operation and maintenance of the facilities and structures of the Project, and (c) performing as required under (a) and (b) for the period required by the State Agreement.

f. The obligations of Paragraph 4d and Paragraph 6 of this Agreement shall survive the termination of this Agreement.

g. The LPS shall not cause Zone 7 to be in violation of the State Agreement, whether by act or omission.

h. In the event of an audit from DWR, LPS shall provide all information Zone 7 requests to fulfill the audit. If the audit finds any compliance deficiency related to the LPS's Project, reporting, or obligations of this agreement, the LPS shall make all remedies necessary to correct said deficiency. LPS will be responsible for any such deficiency and all results therefrom.

5. Breach of State Agreement

If DWR determines there is a breach of the State Agreement, and Zone 7 determines the breach is a result of the LPS not performing their obligations contained herein, or LPS otherwise being in breach of this Agreement, then the LPS agrees to return to Zone 7 any reimbursement which DWR declares needs to be repaid and Zone 7's costs associated with resolving the breach of State Agreement.

6. Inspection of Records; Pass-Through Provisions

Pursuant to the State Agreement, DWR is entitled to inspect and make copies of any records pertaining to the Project and the Parties are required to make available for such inspection accurate

records of all costs, disbursements, and documentation as necessary to comply with the requirements of the State Agreement. LPS shall be subject to this requirement.

7. Indemnification

a. To the fullest extent permitted by law, the LPS will immediately defend, indemnify and hold harmless Zone 7, its directors, officers, employees, or authorized agents, and each of them from and against:

i. All claims, demands, liabilities and losses arising out of the performance (or actual or alleged non-performance) of the Project by the LPS, including its agents and employees for damages to persons or property arising, pertaining to or relating to the LPS's negligent acts or omissions or willful misconduct or the failure of LPS to comply with any professional standard of care applicable to the Project.

ii. Any and all actions, proceedings, damages, costs, expenses, penalties or liabilities, in law or equity, of every kind or nature whatsoever, arising out of, resulting from, or on account of the intentional or negligent violation of any governmental law or regulation, compliance with which is the responsibility of LPS.

iii. Any and all reasonable losses, expenses, damages, attorneys' fees, and other costs, including all costs of defense, including but not only costs of counsel acceptable to Zone 7, which Zone 7 may incur with respect to the failure, neglect, or refusal of LPS to perform the Project or its obligations under the Agreement. LPS shall further defend itself against any and all liabilities, claims, losses, damages, and costs arising out of or alleged to arise out of performance or non- performance of the work hereunder, and shall not tender such claims to Zone 7 nor to its directors, officers, employees, or authorized volunteers, for defense or indemnity.

iv. Any liability including, but not limited to, arising from any funding disallowance, audits, demands, claims, actions, liabilities, damages, fines, fees, costs, and expenses brought forth by DWR.

v. Any liability, claims, or damages, Zone 7 is required to indemnify DWR from pursuant to Section D.20 of Exhibit D of the State Agreement, to the extent that they relate to the Project.

8. Termination

Upon termination of the State Agreement, this Agreement shall terminate effective the same date as the State Agreement and in accordance with the terms and conditions for the termination of the State Agreement.

9. Notice

All notices or notifications to Zone 7 shall be in writing addressed to the persons set forth as follows:

Project Representative:
Valerie Pryor
General Manager
100 North Canyons Parkway
Livermore, CA 94551
vpryor@zone7water.com

Project Manager:
Kevin Padway
Assistant Water Resources Planner
100 North Canyons Parkway
Livermore, CA 94551
kpadway@Zone7water.com

All notices or notifications to the LPS shall be in writing addressed to the persons set forth as follows:

Project Representatives:
Joe Prime
Maintenance and Golf Operations Manager
3500 Robertson Park Road
Livermore, CA 94550
jgprime@livermoreca.gov

Anthony Smith
Water Resources Division Manager
101 West Jack London Blvd.
Livermore, CA 94551
awsmith@livermoreca.gov

Project Managers:
Marisa Gan
Management Analyst II, Public Works -Maintenance and Golf Operations
3500 Robertson Park Road
Livermore, CA 94550
mjgan@livermoreca.gov

Laura Mayate-DeAndreis
Management Analyst II, Public Works-Water Resources Divion
101 West Jack London Blvd.
Livermore, CA 94551
lamayate-deandreis@livermoreca.gov

10. Amendments

This Agreement may be changed only by a written amendment duly signed by Zone 7 and the LPS.

11. Assignment

The LPS shall not assign its rights or delegate its duties under this Agreement.

12. Dispute Resolution

In the event of a dispute between the parties arising from this Agreement, both parties shall meet and confer to try to resolve the issue. If the parties are not able to resolve the issue, both parties shall agree to arbitration or mediation.

13. California Law

This Agreement shall be governed by and construed in accordance with the laws of the State of California.

14. Validity and Severability

If any provision of this Agreement or the application thereof to any circumstance is held invalid, the remainder of this Agreement and the application of such provision to other circumstances shall not be affected thereby.

15. No Waiver

No wavier by either party of any event of breach and/or breach of any provisions of this Agreement shall constitute a waiver of any other event of breach and/or breach. Either Party's non-enforcement at any time, or from time to time, of any provisions of this Agreement shall not be construed as a waiver thereof.

16. Authorities

The individual signing this agreement on behalf of the LPS declare that they have the authority to enter into this agreement on behalf of the LPS. Documentation of said authority is attached hereto as Attachment 2.

17. Payment

Zone 7 is not receiving any compensation from the State Grant for grant administration, which is a burden on Zone 7, nor is Zone 7 receiving any grant funds for a project included in the State Agreement. Rather, Zone 7 is performing the grant administration to support regional water conservation. Zone 7 is willing to do this at no cost to the LPS, contingent upon timely, thorough, and substantive responses, submittals, reports, and other items needed for Zone 7 to effectively administer the State Agreement. In the event that the LPS fails to do so as determined

by Zone 7 at its sole discretion, Zone 7 may decide to invoice LPS for, and LPS agrees to pay Zone 7 for, all costs of grant administration associated with the Project. Said costs may include labor (including fringe benefits), financial, and actual costs incurred in performance of grant administration.

18. Entire Agreement

This Agreement, together with the attachments hereto, constitutes the complete agreement between the Parties.

19. Intent

Any ambiguities within this agreement shall not be construed in a manner which places Zone 7 in a worse position than Zone 7 would have otherwise been in without the State Agreement.

20. DocuSign
All parties consent to using DocuSign for this agreement.

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto:

Alameda County Flood Control and Water Conservation District, Zone 7

_____ Date: _____
Valerie Pryor
General Manager

Approved as to Form:

_____ Date: _____
Rebecca Smith, General Counsel

City of Livermore

_____ Date: _____
Marianna Marysheva
City Manager

Approved as to Form:

_____ Date: _____
Assistant/City Attorney

Attachment 1: State Agreement

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GRANT AGREEMENT BETWEEN THE STATE OF CALIFORNIA (DEPARTMENT OF WATER RESOURCES) AND ZONE 7 WATER AGENCY AGREEMENT NUMBER 4600015378 URBAN COMMUNITY DROUGHT RELIEF GRANT

THIS GRANT AGREEMENT is entered into by and between the Department of Water Resources of the State of California, herein referred to as the "State" or “DWR,” and the Zone 7 Water Agency, a special district in the State of California, duly organized, existing, and acting pursuant to the laws thereof, herein referred to as the "Grantee," which parties do hereby agree as follows:

1) PURPOSE. The State shall provide funding from the Budget Act of 2021, as amended (Stats. 2022, ch. 44, § 25) to the Grantee to assist in financing the Project. By executing this Agreement, the Grantee certifies that the purpose of the Project is in response to a drought scenario, as defined by Water Code section 13198(a) and is intended to: (1) address immediate impacts on human health and safety; (2) address immediate impacts on fish and wildlife resources; or, (3) provide water to persons or communities that lose or are threatened with the loss or contamination of water supplies.

2) TERM OF GRANT AGREEMENT. The term of this Grant Agreement begins on July 1, 2022, and ends three (3) years following the final payment unless otherwise terminated or amended as provided in this Grant Agreement. However, all work shall be completed by December 31, 2026, in accordance with the Schedule as set forth in Exhibit C and no funds may be requested after March 31, 2027.

3) GRANT AMOUNT. The maximum amount payable by the State under this Grant Agreement shall not exceed $2,242,500. Any additional costs are the responsibility of the Grantee.

4) GRANTEE REQUIRED COST SHARE. The Grantee is required to provide a local cost share (non-State funds) in the amount of $768,049, as set forth in Exhibit B (Budget). Required Cost Share must be for Eligible Project Costs directly related to the Project as set forth in Exhibit A (Work Plan), incurred after June 30, 2022.

5) BASIC CONDITIONS.

   A. The State shall have no obligation to disburse money for the Project(s) under this Grant Agreement until the Grantee has satisfied the following conditions (if applicable):

      i. The Grantee shall demonstrate compliance with all eligibility criteria as set forth in the 2022 Urban Community Drought Relief Grant Program Guidelines and Proposal Solicitation Package (2022 Guidelines).

      ii. For the term of this Agreement, the Grantee shall submit Quarterly Progress Reports which must accompany an invoice and all invoice backup documentation. The Quarterly Progress Report shall be submitted within 60 days following the end of the calendar quarter (i.e., reports due May 30, August 29, November 29, and March 1) and all other deliverables as required by Paragraph 13, “Submission of Reports” and Exhibit A, “Work Plan”.

      iii. Prior to the commencement of construction or implementation activities, if applicable, the Grantee shall submit the following to the State.

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1. Final plans and specifications certified, signed and stamped by a California Registered Civil Engineer (or equivalent registered professional as appropriate) to certify compliance for each approved project as listed in Exhibit A of this Grant Agreement.
2. Work that is subject to the California Environmental Quality Act (CEQA) (including final land purchases) shall not proceed under this Grant Agreement until the following actions are performed:

   a) The Grantee submits to the State all applicable environmental permits, as indicated on the Environmental Information Form to the State,

   b) Documents that satisfy the CEQA process are received by the State, and

   c) The Grantee receives written notification from the State of concurrence with the Lead Agency's CEQA documents (s) and State's notice of verification of environmental permit submittal.

   The State's concurrence of Lead Agency's CEQA documents is fully discretionary and shall constitute a condition precedent to any work (i.e., construction or implementation activities) for which it is required. Once CEQA documentation has been completed, the State will consider the environmental documents and decide whether to continue to fund the project, or to require changes, alterations, or other mitigation. Proceeding with work subject to CEQA prior to the State's concurrence shall constitute a material breach of this Agreement. The Grantee or Local Project Sponsor (LPS) shall also demonstrate that it has complied with all applicable requirements of the National Environmental Policy Act (NEPA) by submitting copies of any environmental documents, including Environmental Impact Statements, Finding of No Significant Impact, mitigation monitoring programs, and environmental permits as may be required prior to beginning construction/ implementation.

iv. A monitoring plan as required by Paragraph 15, "Monitoring Plan Requirements," if applicable.

6) DISBURSEMENT OF FUNDS. The State will disburse to the Grantee the amount approved, subject to the availability of funds through normal State processes. Notwithstanding any other provision of this Grant Agreement, no disbursement shall be required at any time or in any manner which is in violation of, or in conflict with, federal or state laws, rules, or regulations. Any and all money disbursed to the Grantee under this Grant Agreement shall be deposited in a non-interest-bearing account and shall be used solely to pay Eligible Project Costs.

7) ELIGIBLE PROJECT COST. The Grantee shall apply State funds received only to Eligible Project Costs in accordance with applicable provisions of the law and Exhibit B, "Budget". Eligible Project Costs include the reasonable costs of studies, engineering, design, land and easement acquisition and associated legal fees, preparation of environmental documentation, environmental mitigations, monitoring, and project construction. Reimbursable administrative expenses are the necessary costs incidental but directly related to the Project included in this Agreement. Costs incurred after June 30, 2022, may be eligible for reimbursement.

   Costs that are not eligible for reimbursement include, but are not limited to, the following items:

   A. Costs, other than those noted above, incurred prior to July 1, 2022.

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B. Costs for preparing and filing a grant application.

C. Purchase of equipment that is not an integral part of a project.

D. Establishing a reserve fund.

E. Purchase of water supply.

F. Replacement of existing funding sources (e.g., bridge loans).

G. Meals, food items, or refreshments.

H. Payment of any punitive regulatory agency requirement, federal or state taxes.

I. Purchase of land in excess of the minimum required acreage necessary to operate as an integral part of a project, as set forth and detailed by engineering and feasibility studies, or acquisition of land by eminent domain.

J. Overhead and Indirect Costs. “Indirect Costs” means those costs that are incurred for a common or joint purpose benefiting more than one cost objective and are not readily assignable to the funded project (i.e., costs that are not directly related to the funded project). Examples of Indirect Costs include, but are not limited to: central service costs; general administration of the Grantee or LPSs; non-project-specific accounting and personnel services performed within the Grantee’s or LPS’ organization; depreciation or use allowances on buildings and equipment; the costs of operating and maintaining non-project-specific facilities; tuition and conference fees; forums, trainings, and seminars; and, generic overhead or markup. This prohibition applies to the Grantee, LPSs, and any subcontract or sub-agreement for work on the Project that will be reimbursed pursuant to this Agreement.

K. Mitigation for environmental impacts not resulting from implementation of a project funded by this Agreement. Costs incurred as part of any necessary response and cleanup activities required under the Comprehensive Environmental Response, Compensation, and Liability Act; Resource Conservation and Recovery Act; Hazardous Substances Account Act; or other applicable law.

8) METHOD OF PAYMENT. After the disbursement requirements in Paragraph 5, “Basic Conditions” are met, the State will disburse the whole or portions of State funding to the Grantee, following receipt from the Grantee of an electronic invoice certified and transmitted via electronic/digital signature system (e.g., DocuSign) or via US mail or Express mail delivery of a “wet signature” for costs incurred, including Local Cost Share, and timely Quarterly Progress Reports as required by Paragraph 13, “Submission of Reports.” Payment will be made no more frequently than quarterly, in arrears, upon receipt of an invoice bearing the Grant Agreement number. Quarterly Progress Report must accompany an invoice and shall be submitted within 60 days following the end of the calendar quarter (i.e., invoices due May 30, August 29, November 29, and March 1). The State will notify the Grantee, in a timely manner, whenever, upon review of an invoice, the State determines that any portion or portions of the costs claimed are not eligible costs or is not supported by documentation or receipts acceptable to the State. The Grantee may, within thirty (30) calendar days of the date of receipt of such notice, submit additional documentation to the State to cure such deficiency(ies). If the Grantee fails to submit adequate documentation curing the deficiency(ies), the State will adjust the pending invoice by the amount of ineligible or unapproved costs.

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Invoices submitted by the Grantee shall include the following information:

A. Costs incurred for work performed in implementing the Project during the period identified in the particular invoice.

B. Costs incurred for any interests in real property (land or easements) that have been necessarily acquired for a project during the period identified in the particular invoice for the implementation of a project.

C. Invoices shall be submitted on forms provided by the State and shall meet the following format requirements:

   i. Invoices shall contain the date of the invoice, either the time period covered by the invoice or the invoice date received within the time period covered, and the total amount due.

   ii. Invoices shall be itemized based on the categories (i.e., tasks) specified in Exhibit B, "Budget." The amount claimed for salaries/wages/consultant fees shall include a calculation formula (i.e., hours or days worked times the hourly or daily rate = the total amount claimed).

   iii. One set of sufficient evidence (i.e., receipts, copies of checks, personnel hours' summary table, time sheets) shall be provided for all costs included in the invoice.

   iv. Each invoice shall clearly delineate those costs claimed for reimbursement from the State's funding amount, as depicted in Paragraph 3, "Grant Amount".

   v. Original signature and date of the Grantee's Project Representative. Submit an electronic invoice, certified and transmitted via electronic/digital signature system (e.g., DocuSign), from authorized representative to the Project Manager or the original "wet signature" copy of the invoice form to the Project Manager at the following address: Financial Assistance Branch, DWR, P.O. Box 942836, Sacramento, CA 94236.

All invoices submitted shall be accurate and signed under penalty of law. Any and all costs submitted pursuant to this Agreement shall only be for the tasks set forth herein. The Grantee shall not submit any invoice containing costs that are ineligible or have been reimbursed from other funding sources unless required and specifically noted as such (i.e., cost share). Any eligible costs for which the Grantee is seeking reimbursement shall not be reimbursed from any other source. Double or multiple billing for time, services, or any other eligible cost is illegal and constitutes fraud. Any suspected occurrences of fraud, forgery, embezzlement, theft, or any other misuse of public funds may result in suspension of disbursements of grant funds and/or termination of this Agreement requiring the repayment of all funds disbursed hereunder plus interest. Additionally, the State may request an audit pursuant to Standard Condition Paragraph D.5 and refer the matter to the Attorney General's Office or the appropriate district attorney's office for criminal prosecution or the imposition of civil liability. (Civ. Code, §§ 1572-1573; Pen. Code, §§ 470, 487-489.)

9) ADVANCED PAYMENT. Water Code section 13198.4(c) authorizes advanced payment by the State for grantees that demonstrate cash flow issues. A project may receive an advanced payment of twenty-five (25) percent of its grant award; the remaining seventy-five (75) percent of the grant award will be reimbursed in arrears after the advanced funds have been fully expended. Within ninety (90) calendar days of execution of the Grant Agreement, the Grantee may provide

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the State an Advanced Payment Request. Advanced Payment Requests received ninety-one (91) calendar days after the execution of this Agreement will not be eligible to receive an advanced payment. The Advanced Payment Request shall contain the following:

A. Documentation demonstrating that each LPS (if different from the Grantee, as listed in Exhibit I) was notified about their eligibility to receive an advanced payment and a response from the LPS stating whether it wishes to receive the advanced payment or not.

B. If the Grantee is requesting the advanced payment, the request(s) shall include:

   i. Descriptive information of each project with an update on project status.
   ii. Description and documentation of the cash flow issues the LPS has that requires funds to be advanced.
   iii. The names of the entities that will receive the funding for each project.
   iv. A detailed Funding Plan which includes how the advanced payment will be expended (in terms of workplan, budget, and schedule) within the timeframe agreed upon by DWR and the Grantee. The Funding Plan must clearly identify the total budget (at Budget Category Level) for each project clearly showing the portion of advanced payment and reimbursement funds.

   v. Any other information that DWR may deem necessary.

C. Upon review and approval of the Advanced Payment Request, DWR may authorize payment of the requested amount or a lesser amount for those entities that have requested advanced funds. Based on the project's Funding Plan and other considerations, DWR may develop a "Disbursement Schedule," to disburse funds in installments. This Disbursement Schedule may change based on the project's ongoing compliance with the Advanced Payment requirements and the project's cash flow needs.

D. Once DWR authorizes the Advanced Payment Request, the Grantee shall submit Advanced Payment Invoice(s) for the initial amount based on the "Disbursement Schedule" on behalf of the LPS(s), containing the request for each project requesting advanced funds, to the State with signature and date of the Grantee's Project Representative, as indicated in Paragraph 19, "Project Representative." The Grantee shall be responsible for the timely distribution of the advanced funds to the respective LPS(s). The Advanced Payment Invoice(s) shall be submitted on forms provided by the State and shall meet the following format requirements:

   i. Invoice shall contain the date of the invoice, the time period covered by the invoice, and the total amount due.

   ii. Invoice shall be itemized based on the budget categories specified in Exhibit B, "Budget."

   iii. The State Project Manager will notify the Grantee, in a timely manner, when, upon review of an Advance Payment Invoice, the State determines that any portion or portions of the costs claimed are not eligible costs. The Grantee may, within thirty (30) calendar days of the date of receipt of such notice, submit additional documentation to cure such deficiency(ies). The Grantee may, within thirty (30) calendar days of the date of receipt of such notice, submit additional documentation to cure such deficiency(ies). If costs are not consistent with the tasks in Exhibit A, the State will reject the claim and remove them from the Accountability Report.

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iv. On a quarterly basis, the Grantee will submit an Accountability Report to the State that demonstrates how actual expenditures compare with the scheduled budget. The Accountability Report shall include the following information:

1. An itemization of how advanced funds have been spent to-date (Expenditure Report), including documentation that supports the disbursements (e.g., contractor invoices, receipts, personnel hours, etc.). Accountability Reports shall be itemized based on the budget categories (i.e., tasks) specified in Exhibit B.
2. An updated Accountability Report including an updated Funding Plan that depicts how the remaining advanced funds will be expended and the activities and deliverables associated with the advanced funds within the timeframe agreed upon by DWR and the Grantee when the advanced payment request was approved.
3. Documentation that the funds were placed in a non-interest bearing account, including the dates of deposits and withdrawals from that account.
4. Proof of distribution of advanced funds to LPS(s), if applicable.

E. Once the Grantee has spent all advanced funds in a budget category, then the method of payment will revert to the reimbursement process for that budget category specified in Paragraph 8, “Method of Payment.”

10) WITHHOLDING OF DISBURSEMENTS BY THE STATE. If the State determines that a project is not being implemented in accordance with the provisions of this Grant Agreement, or that the Grantee has failed in any other respect to comply with the provisions of this Grant Agreement, and if the Grantee does not remedy any such failure to the State’s satisfaction, the State may withhold from the Grantee all or any portion of the State funding and take any other action that it deems necessary to protect its interests. Where a portion of the State funding has been disbursed to the Grantee and the State notifies the Grantee of its decision not to release funds that have been withheld pursuant to Paragraph 11, “Default Provisions,” the portion that has been disbursed shall thereafter be repaid immediately at the time the State notifies the Grantee, as directed by the State. The State may consider the Grantee’s refusal to repay the requested disbursed amount a material breach subject to the default provisions in Paragraph 11, “Default Provisions.” If the State notifies the Grantee of its decision to withhold the entire funding amount from the Grantee pursuant to this Paragraph, this Grant Agreement shall terminate upon receipt of such notice by the Grantee and the State shall no longer be required to provide funds under this Grant Agreement and the Grant Agreement shall no longer be binding on either party.

11) DEFAULT PROVISIONS. The Grantee shall be in default under this Grant Agreement if any of the following occur:

A. Substantial breaches of this Grant Agreement, or any supplement or amendment to it, or any other agreement between the Grantee and the State evidencing or securing the Grantee’s obligations;

B. Making any false warranty, representation, or statement with respect to this Grant Agreement or the application filed to obtain this Grant Agreement;

C. Failure to operate or maintain the Project in accordance with this Grant Agreement.

D. Failure to make any remittance required by this Grant Agreement, including any remittance recommended as the result of an audit conducted pursuant to Standard Condition Paragraph D.5.

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E. Failure to submit quarterly progress reports pursuant to Paragraph 5.

F. Failure to routinely invoice the State pursuant to Paragraph 8.

G. Failure to meet any of the requirements set forth in Paragraph 12, “Continuing Eligibility.”

Should an event of default occur, the State shall provide a notice of default to the Grantee and shall give the Grantee at least ten (10) calendar days to cure the default from the date the notice is sent via first-class mail to the Grantee. If the Grantee fails to cure the default within the time prescribed by the State, the State may do any of the following:

A. Declare the funding be immediately repaid.

B. Terminate any obligation to make future payments to the Grantee.

C. Terminate the Grant Agreement.

D. Take any other action that it deems necessary to protect its interests.

In the event the State finds it necessary to enforce this provision of this Grant Agreement in the manner provided by law, the Grantee agrees to pay all costs incurred by the State including, but not limited to, reasonable attorneys' fees, legal expenses, and costs.

12) CONTINUING ELIGIBILITY. The Grantee shall meet the following ongoing requirement(s) and all eligibility criteria outlined in the 2022 Guidelines to remain eligible to receive State funds:

A. An urban water supplier that receives grant funds pursuant to this Agreement shall maintain compliance with the Urban Water Management Planning Act (UWMP; Wat. Code, § 10610 et seq.) and Sustainable Water Use and Demand Reduction (Wat. Code, § 10608 et seq.) as set forth on page 21 of the 2022 Guidelines and Proposal Solicitation Package.

B. An agricultural water supplier receiving grant funds shall comply with Sustainable Water Use and Demand Reduction requirements outlined in Water Code section 10608, et seq. and have their Agricultural Water Management Plan (AWMP) deemed consistent by DWR. To maintain eligibility and continue funding disbursements, an agricultural water supply shall have their 2021 AWMP identified on the State’s website. For more information, visit the website listed in the 2022 Guidelines and Proposal Solicitation Package.

C. A surface water diverter receiving grant funds shall maintain compliance with diversion reporting requirements as outlined in Water Code section 5100 et. seq.

D. If applicable, the Grantee shall demonstrate compliance with the Sustainable Groundwater Management Act (SGMA) as set forth in the 2022 Guidelines and Proposal Solicitation Package.

E. If the Grantee has been designated as a monitoring entity under the California Statewide Groundwater Elevation Monitoring (CASGEM) Program, the Grantee shall maintain reporting compliance, as required by Water Code section 10932 and the CASGEM Program. Alternatively, if the Grantee has submitted a Groundwater Sustainability Plan (GSP) or Alternative Plan pursuant to the GSP Regulations (Cal. Code Regs., tit. 23, § 350 et seq.), groundwater level data must be submitted through the SGMA Portal at: https://sgma.water.ca.gov/portal/.

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F. The Grantee shall adhere to the protocols developed pursuant to The Open and Transparent Water Data Act (Wat. Code, § 12406, et seq.) for data sharing, transparency, documentation, and quality control.

G. On March 4, 2022, the Governor issued Executive Order N-6-22 (the EO) regarding Economic Sanctions against Russia and Russian entities and individuals. The EO may be found at: https://www.gov.ca.gov/wp-content/uploads/2022/03/3.4.22-Russia-Ukraine-Executive-Order.pdf. "Economic Sanctions" refers to sanctions imposed by the U.S. government in response to Russia's actions in Ukraine, as well as any sanctions imposed under State law. The EO directs DWR to terminate funding agreements with, and to refrain from entering any new agreements with, individuals or entities that are determined to be a target of Economic Sanctions. Accordingly, should the State determine that the Grantee is a target of Economic Sanctions or is conducting prohibited transactions with sanctioned individuals or entities, that shall be grounds for termination of this Agreement. The State shall provide the Grantee advance written notice of such termination, allowing the Grantee at least 30 calendar days to provide a written response. Termination shall be at the sole discretion of the State.

13) SUBMISSION OF REPORTS. The submittal and approval of all reports is a requirement for the successful completion of this Grant Agreement. Reports shall meet generally accepted professional standards for technical reporting and shall be proofread for content, numerical accuracy, spelling, and grammar prior to submittal to the State. All reports shall be submitted to the State's Project Manager and shall be submitted via the DWR "Grant Review and Tracking System" (GRanTS). If requested, the Grantee shall promptly provide any additional information deemed necessary by the State for the approval of reports. Reports shall be presented in the formats described in the applicable portion of Exhibit F, "Report Formats and Requirements." The timely submittal of reports is a requirement for initial and continued disbursement of State funds. Submittal and subsequent approval by the State of a Project Completion Report is a requirement for the release of any funds retained for such project.

A. Quarterly Progress Reports: The Grantee shall submit quarterly Progress Reports to meet the State's requirement for disbursement of funds. Progress Reports shall be uploaded via GRanTS, and the State's Project Manager notified of upload. Progress Reports shall, in part, provide a brief description of the work performed, the Grantee's activities, milestones achieved, any accomplishments and any problems encountered in the performance of the work under this Grant Agreement during the reporting period. The first Progress Report must accompany an invoice and shall be submitted within 60 days following the end of the calendar quarter (i.e., invoices due May 30, August 29, November 29, and March 1).

B. Project Completion Report: The Grantee shall prepare and submit to the State a separate Project Completion Report for each project included in Exhibit A. The Grantee shall submit a Project Completion Report (or a Component Completion Report, if a Project has multiple Components) within ninety (90) calendar days of Project/Component completion as outlined in Exhibit F.

C. Grant Completion Report: Upon completion of all the Projects included in Exhibit A, the Grantee shall submit to the State a Grant Completion Report. The Grant Completion Report shall be submitted within ninety (90) calendar days of submitting the Completion Report for the final project to be completed under this Grant Agreement, as outlined in Exhibits A and F.

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Retention for any grant administration line items in the Budget of this Grant Agreement will not be disbursed until the Grant Completion Report is approved by the State.

D. Post-Performance Reports: The Grantee shall prepare and submit to the State Post-Performance Reports for the applicable project(s). Post-Performance Reports shall be submitted to the State within ninety (90) calendar days after the first operational year of a project has elapsed. This record keeping and reporting process shall be repeated annually for a total of three (3) years after the project begins operation.

14) OPERATION AND MAINTENANCE OF PROJECT. For the useful life of construction and implementation projects and in consideration of the funding made by the State, the Grantee agrees to ensure or cause to be performed the commencement and continued operation of the project, and shall ensure or cause the project to be operated in an efficient and economical manner; shall ensure all repairs, renewals, and replacements necessary to the efficient operation of the same are provided; and shall ensure or cause the same to be maintained in as good and efficient condition as upon its construction, ordinary and reasonable wear and depreciation excepted. The State shall not be liable for any cost of such maintenance, management, or operation. The Grantee or their successors may, with the written approval of the State, transfer this responsibility to use, manage, and maintain the property. For purposes of this Grant Agreement, “useful life” means period during which an asset, property, or activity is expected to be usable for the purpose it was acquired or implemented; “operation costs” include direct costs incurred for material and labor needed for operations, utilities, insurance, and similar expenses, and “maintenance costs” include ordinary repairs and replacements of a recurring nature necessary for capital assets and basic structures and the expenditure of funds necessary to replace or reconstruct capital assets or basic structures. Refusal by the Grantee to ensure operation and maintenance of the projects in accordance with this provision may, at the option of the State, be considered a breach of this Grant Agreement and may be treated as default under Paragraph 11, “Default Provisions.”

15) MONITORING PLAN REQUIREMENTS. A Monitoring Plan shall be submitted to the State prior to disbursement of State funds for construction or monitoring activities. The Monitoring Plan should incorporate Post-Performance Monitoring Report requirements as defined and listed in Exhibit F, and follow the guidance provided in Exhibit L, “Project Monitoring Plan Guidance.”

16) NOTIFICATION OF STATE. The Grantee shall promptly notify the State, in writing, of the following items:

A. Events or proposed changes that could affect the scope, budget, or work performed under this Grant Agreement. The Grantee agrees that no substantial change in the scope of a project will be undertaken until written notice of the proposed change has been provided to the State and the State has given written approval for such change. Substantial changes generally include changes to the scope of work, schedule or term, and budget.

B. Any public or media event publicizing the accomplishments and/or results of this Grant Agreement and provide the opportunity for attendance and participation by the State’s representatives. The Grantee shall make such notification at least fourteen (14) calendar days prior to the event.

C. Discovery of any potential archaeological or historical resource. Should a potential archaeological or historical resource be discovered during construction, the Grantee agrees

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that all work in the area of the find shall cease until a qualified archaeologist has evaluated the situation and made recommendations regarding preservation of the resource, and the State has determined what actions should be taken to protect and preserve the resource. The Grantee agrees to implement appropriate actions as directed by the State.

D. The initiation of any litigation or the threat of litigation against the Grantee or an LPS regarding the Project or which may affect the Project in any way.

E. Applicable to construction projects only: Final inspection of the completed work on a project by a Registered Professional (Civil Engineer, Engineering Geologist, or other State approved certified/licensed Professional), in accordance with Exhibit D. The Grantee shall notify the State's Project Manager of the inspection date at least fourteen (14) calendar days prior to the inspection in order to provide the State the opportunity to participate in the inspection.

17) NOTICES. Any notice, demand, request, consent, or approval that either party desires or is required to give to the other party under this Grant Agreement shall be in writing. Notices may be transmitted by any of the following means:

A. By delivery in person.

B. By certified U.S. mail, return receipt requested, postage prepaid.

C. By "overnight" delivery service; provided that next-business-day delivery is requested by the sender.

D. By electronic means.

E. Notices delivered in person will be deemed effective immediately on receipt (or refusal of delivery or receipt). Notices sent by certified mail will be deemed effective given ten (10) calendar days after the date deposited with the U.S. Postal Service. Notices sent by overnight delivery service will be deemed effective one business day after the date deposited with the delivery service. Notices sent electronically will be effective on the date of transmission, which is documented in writing. Notices shall be sent to the addresses listed below. Either party may, by written notice to the other, designate a different address that shall be substituted for the one below.

18) PERFORMANCE EVALUATION. Upon completion of this Grant Agreement, the Grantee's performance will be evaluated by the State and a copy of the evaluation will be placed in the State file and a copy sent to the Grantee.

19) PROJECT REPRESENTATIVES. The Project Representatives during the term of this Grant Agreement are as follows:

Department of Water Resources

Arthur Hinojosa
Manager, Division of Regional Assistance
P.O. Box 942836
Sacramento, CA 94236
Phone: (916) 902-6713
Email: Arthur.Hinojosa@water.ca.gov

Zone 7 Water Agency

Valerie Pryor
General Manager
100 North Canyons Parkway
Livermore, CA 94551
Phone: (925) 454-5000
Email:vpryor@zone7water.com

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Direct all inquiries to the Project Manager:

Department of Water Resources	Zone 7 Water Agency
Amenda Blackwell Environmental Scientist P.O. Box 942836 Sacramento, CA 94236 Phone: 916-326-9026 Email: Amanda.Blackwell@water.ca.gov	Kevin Padway Assistant Water Resources Planner 100 North Canyons Parkway Livermore, CA 94550 Phone: (925) 454-5020 Email: kpadway@zone7water.com

Either party may change its Project Representative or Project Manager upon written notice to the other party.

20) STANDARD PROVISIONS. This Grant Agreement is complete and is the final Agreement between the parties. The following Exhibits are attached and made a part of this Grant Agreement by this reference:

Exhibit A – Work Plan

Exhibit B – Budget

Exhibit C – Schedule

Exhibit D – Standard Conditions

Exhibit E – Authorizing Resolution

Exhibit F – Report Formats and Requirements

Exhibit G – Requirements for Data Submittal

Exhibit H – State Audit Document Requirements and Cost Share Guidelines for the Grantee

Exhibit I – Local Project Sponsors and Project Locations

Exhibit J – Appraisal Specifications

Exhibit K – Information Needed for Escrow Processing and Closure

Exhibit L – Project Monitoring Plan Guidance

Exhibit M – Invoice Guidance for Administrative and Overhead Charges

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IN WITNESS WHEREOF, the parties hereto have executed this Grant Agreement.

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

ah

Arthur Hinojosa
Manager, Division of Regional Assistance

Date 11/27/2023

ZONE 7 WATER AGENCY

Valerie Pryor

Valerie Pryor
General Manager

Date 11/22/2023

Approved as to Legal Form and Sufficiency

James Herink For

Robin Brewer
Assistant General Counsel,
Office of the General Counsel

Date 11/27/2023

AMO CB

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EXHIBIT A

WORK PLAN

Grant Administration

IMPLEMENTING AGENCY: Zone 7 Water Agency (Grantee)

PROJECT DESCRIPTION: The Grantee will administer these funds and respond to DWR's reporting and compliance requirements associated with the grant administration. This Grantee will act in a coordination role: disseminating grant compliance information to the project managers responsible for implementing the projects contained in this Agreement, obtaining and retaining evidence of compliance (e.g., CEQA/NEPA documents, reports, monitoring compliance documents, labor requirements, etc.), obtaining data for progress reports from individual project managers, assembling and submitting progress reports to the State, and coordinating all invoicing and payment of invoices.

Budget Category (a): Project Administration

Task 1: Agreement Administration

The Grantee will respond to DWR's reporting and compliance requirements associated with the grant administration and will coordinate with the project managers responsible for implementing the projects contained in this Agreement.

Task 2: Invoicing

The Grantee will be responsible for compiling invoices for submittal to DWR. This includes collecting invoice documentation from each of the Local Project Sponsors and compiling the information into a DWR Invoice Packet.

Deliverables:

- Quarterly Invoices and associated backup documentation

Task 3: Reporting

The Grantee will be responsible for compiling progress reports for submittal to DWR. The Grantee will coordinate with Local Project Sponsor staff to retain consultants as needed to prepare and submit progress reports and final project completion reports for each project, as well as the grant completion report.

Reports will meet generally accepted professional standards for technical reporting and the requirements terms of the contract with DWR outlined in Exhibit F of this Agreement.

Deliverables:

- Quarterly Progress Reports
- Grant Completion Report

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PROJECT 1: Dublin Irrigation System Upgrades

IMPLEMENTING AGENCY: City of Dublin (City)

PROJECT DESCRIPTION: The project will achieve four improvements to the City's Central Irrigation System: 1) Communications – Provide necessary improvements to existing system to ensure adequate communication between the central system and irrigation controllers throughout all City maintained landscapes; 2) System Optimization and Operations – For 25 of the City's large landscapes provide advanced site-specific scheduling to improve overall water efficiency and landscape quality based on the following factors: soil, plant type, slope, sun, shade, etc. Additionally, provide operational and training support for City Staff to maintain and continue system operations; 3) System Upgrades – Install up to 40 new controllers with cellular communication capable of communicating with the Central Irrigation System along street medians west of Dougherty Road in Dublin; and 4) The work will also include up to forty master valve and flow systems that can shut off in the event of an unscheduled flow. It is anticipated that by completing all three measures the City of Dublin park system will reduce water usage by approximately 28 acre-feet per year based on acreage of City maintained landscapes as of July 1, 2023.

Budget Category (a): Project Administration

Task 1: Project Management

Manage Grant Agreement including compliance with grant requirements, and preparation and submission of supporting grant documents. Prepare invoices including relevant supporting documentation for submittal to DWR via the Grantee. This task also includes administrative responsibilities associated with the project such as coordinating with partnering agencies and managing consultants/contractors.

Deliverables:

- Invoices and associated backup documentation

Task 2: Reporting

Prepare progress reports detailing work completed during reporting period as outlined in Exhibit F of this Agreement. Submit reports to DWR.

Prepare Project Completion Report and submit to DWR no later than 90 days after project completion for DWR Project Manager's comment and review. The report shall be prepared and presented in accordance with guidance as outlined in Exhibit F.

Deliverables:

- Quarterly Project Progress Reports
- Project Completion Report
- Documentation (e.g., photo) of "Acknowledgment of Credit & Signage" per Standard Condition D.2

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Budget Category (b): Land Purchase/Easement

Task 3: Land Purchase

Not applicable.

Budget Category (c): Planning/Design/Engineering/Environmental Documentation

Task 4: Feasibility Studies

Not applicable.

Task 5: CEQA Documentation

Complete environmental review pursuant to CEQA. Prepare all necessary environmental documentation. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- All completed CEQA documents as required
- Legal Challenges Letter

Task 6: Permitting

The following permits are anticipated to be acquired for this project: Encroachment Permit from the City of Dublin

Deliverables:

- Permits as required

Task 7: Design

Design will require: 1) Complete communication connections 2) Complete system programming and optimization 3) Complete plans and specifications for the replacement of irrigation controllers and installation of master-valve/flow sensors.

Deliverables:

- 100% Design Plans and Specifications

Task 8: Project Monitoring Plan

Develop and submit a Project Monitoring Plan per Paragraph 15 for DWR's review and approval.

Deliverables:

- Project Monitoring Plan

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Budget Category (d): Construction/Implementation

Task 9: Contract Services

This task must comply with the Standard Condition D.10 – Competitive Bidding and Procurements. Activities necessary (as applicable) to secure a contractor and award the contract, including: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

Deliverables:

- Bid Documents
- Proof of Advertisement
- Award of Contract
- Notice to Proceed

Task 10: Construction Administration

This task includes managing contractor submittal review, answering requests for information, and issuing work directives. An engineering construction observer will be on site for the duration of the project. Construction observer duties include documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, notifying contractor if work is not acceptable. Upon completing the project, the DWR Certificate of Project Completion will be provided to DWR.

Deliverables:

- DWR Certificate of Project Completion
-

Task 11: Construction

Construction activities are outlined below.

11(a): Mobilization and Demobilization: Contractor will establish systems, personnel, procure equipment and materials in preparation to complete work. At the end of the project the contractor will complete punchlist and scale down operations to closeout the work.

11(b): Site preparation will include removal of up to 40 existing controllers, excavation and demolition of existing improvements.

11(c): Install, construct, excavate Up to 40 new controllers and up to 40 master valve and flow systems will be installed.

11(d): Improve: The improvements will result in up to 40 new controllers and up to 40 master valve and flow systems being installed.

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Program activities are outlined below:

11(e): Communication Upgrades: Working with the City's Central System vendor and irrigation consultant identify the issues with communications between the Central System and irrigation controllers. Take corrective measures to ensure operational effectiveness of the system.

11(f): System Optimization and Operations: The City's irrigation consultant will evaluate twenty-five of the City's large landscapes and will provide advanced sites-specific scheduling based on soil, plant type, slope, sun, shade et cetera to improve overall water efficiency.

11(g): System Optimization and Operations: The City's irrigation consultant along with the Central System vendor will provide operation and training support for City Staff to maintain and operate the system on-going.

Deliverables:

- Photographic Documentation of Progress

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PROJECT 2: Citywide Turf Reduction

IMPLEMENTING AGENCY: City of Livermore (City)

PROJECT DESCRIPTION: This project will help the City reduce non-functional turf at various City properties, thereby reducing the demand for potable water. The City anticipates replacing approximately 109,000 square feet of turf in at least five City owned sites. This turf would be replaced with a drought tolerant landscape and incorporate drip irrigation. The project would reduce water demand by approximately 21 acre-feet per year.

Budget Category (a): Project Administration

Task 1: Project Management

Manage Grant Agreement including compliance with grant requirements, and preparation and submission of supporting grant documents. Prepare invoices including relevant supporting documentation for submittal to DWR via the Grantee. This task also includes administrative responsibilities associated with the project such as coordinating with partnering agencies and managing consultants/contractors.

Deliverables:

- Invoices and associated backup documentation

Task 2: Reporting

Prepare progress reports detailing work completed during reporting period as outlined in Exhibit F of this Agreement. Submit reports to DWR.

Prepare Project Completion Report and submit to DWR no later than 90 days after project completion for DWR Project Manager's comment and review. The report shall be prepared and presented in accordance with guidance as outlined in Exhibit F.

Deliverables:

- Quarterly Project Progress Reports
- Project Completion Report
- Documentation (e.g., photo) of "Acknowledgment of Credit & Signage" per Standard Condition D.2

Budget Category (b): Land Purchase/Easement

Task 3: Land Purchase

Not Applicable.

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Budget Category (c): Planning/Design/Engineering/Environmental Documentation

Task 4: Feasibility Studies

Initial planning has been completed on this project. Five sites have been identified and City staff will work with a consultant to draft initial designs. Conceptual planting designs will be available as part of the Project Monitoring Plan.

Deliverables:

- Site plans

Task 5: CEQA Documentation

Complete environmental review pursuant to CEQA. Prepare all necessary environmental documentation. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- All completed CEQA documents as required
- Legal Challenges Letter

Task 6: Permitting

Not applicable

Task 7: Design

The City currently maintains approximately 18.25 acres of turf, with 15.5 acres irrigated with potable water. The remainder is irrigated with reclaimed water.

The landscape designs for the five proposed turf reduction areas (1) City Center Campus, (2) Arroyo Road, (3) East Avenue, (4) Crater Way, and (5) Maintenance Service Center place a specific emphasis on replacing turf with low water use plantings while maintaining aesthetics. In addition, planting strategies such as minimizing clustering, proper tree spacing, and considering full maturity of plants will reduce maintenance requirements and increase plant health.

The landscape design renovations will include updating the irrigation systems from overhead sprays to individual plant bubblers. Irrigation strategies will include isolated lateral lines, drip irrigation and timings. Individual circuits to certain trees or tree clusters will help sustain trees when mandatory water restrictions are required, including further reductions.

Competitive bid contractors would be utilized for the renovations.

Deliverables:

- Final designs

Task 8: Project Monitoring Plan

Develop and submit a Project Monitoring Plan per Paragraph 15 for DWR’s review and approval.

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Deliverables:

- Project Monitoring Plan

Budget Category (d): Construction/Implementation

Task 9: Contract Services

This task must comply with the Standard Condition D.10 – Competitive Bidding and Procurements. Activities necessary (as applicable) to secure a contractor and award the contract, including: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

Deliverables:

- Bid Documents
- Proof of Advertisement
- Award of Contract
- Notice to Proceed

Task 10: Construction Administration

This task includes managing contractor submittal review, answering requests for information, and issuing work directives. Upon completing the project, the DWR Certificate of Project Completion will be provided to DWR.

Deliverables:

- DWR Certificate of Project Completion

Task 11: Construction

Construction activities are outlined below.

11(a): Mobilization and demobilization is not required for the turf reduction projects.

11(b): Site preparation is minimal and includes turf removal and/or sheet mulching.

11(c): Low water use landscaping and/or ground cover such as mulch will be installed. Drip irrigation will also be installed where necessary at the five identified sites. Excavation will not be required since each site will sheet mulch over existing turf.

Deliverables:

- Photographic Documentation of Progress

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PROJECT 3: Recycled Water Fill Station

IMPLEMENTING AGENCY: City of Livermore

PROJECT DESCRIPTION: This project will construct an automated self-service recycled water fill station that will allow residential customers access to recycled water for irrigation and other non-potable uses. The automated fill station would provide a permanent year-round recycled water source for many residents. This project will increase recycled water use locally by approximately 18 acre-feet per year.

Budget Category (a): Project Administration

Task 1: Project Management

Manage Grant Agreement including compliance with grant requirements, and preparation and submission of supporting grant documents. Prepare invoices including relevant supporting documentation for submittal to DWR via the Grantee. This task also includes administrative responsibilities associated with the project such as coordinating with partnering agencies and managing consultants/contractors.

Deliverables:

- Invoices and associated backup documentation

Task 2: Reporting

Prepare progress reports detailing work completed during reporting period as outlined in Exhibit F of this Agreement. Submit reports to DWR.

Prepare Project Completion Report and submit to DWR no later than 90 days after project completion for DWR Project Manager's comment and review. The report shall be prepared and presented in accordance with guidance as outlined in Exhibit F.

Deliverables:

- Quarterly Project Progress Reports
- Project Completion Report
- Documentation (e.g., photo) of "Acknowledgment of Credit & Signage" per Standard Condition D.2

Budget Category (b): Land Purchase/Easement

Task 3: Land Purchase

Not applicable.

Budget Category (c): Planning/Design/Engineering/Environmental Documentation

Task 4: Feasibility Studies

Preliminary planning has been completed for this project. A site located at the Water Resources Plant has been identified. A site plan will be available as part of the Project Monitoring Plan.

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Deliverables:

- Site Plan

Task 5: CEQA Documentation

Complete environmental review pursuant to CEQA. Prepare all necessary environmental documentation. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- All completed CEQA documents as required
- Legal Challenges Letter

Task 6: Permitting

The project will require connection to existing electrical service that may be subject to permits. No other permits will be required to complete this project.

Deliverables:

- Permits as required

Task 7: Design

The fill station location is adjacent to existing roadway at the entrance of the plant. Two fill station machines will be installed. The fill stations will be unmanned with automated access control. The installation will include a trenched connection to existing water supply and electrical service.

Deliverables:

- 100% Design Plans and Specifications

Task 8: Project Monitoring Plan

Develop and submit a Project Monitoring Plan per Paragraph 15 for DWR's review and approval.

Deliverables:

- Project Monitoring Plan

Budget Category (d): Construction/Implementation

Task 9: Contract Services

This task must comply with the Standard Condition D.10 – Competitive Bidding and Procurements. Activities necessary (as applicable) to secure a contractor and award the contract, including: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

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Deliverables:

- Bid Documents
- Proof of Advertisement
- Award of Contract
- Notice to Proceed

Task 10: Construction Administration

This task includes managing contractor submittal review, answering requests for information, and issuing work directives. A full-time engineering construction observer will be on site for the duration of the project. Construction observer duties include documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, forecasting cash flow, notifying contractor if work is not acceptable. Upon completing the project, the DWR Certificate of Project Completion and record drawings will be provided to DWR.

Deliverables:

- DWR Certificate of Project Completion
- Record Drawings

Task 11: Construction

Construction activities are outlined below.

11(a): Mobilization and Demobilization including preparation of submittals and layout in city provided space near construction site.

11(b): Site preparation will include signage, barricades segregating public from construction site, traffic control, and clearing and grubbing.

11(c): Utility trenching including connecting to existing point of electrical service and water supply, installation of water supply piping, related valves, and meter; conduits and conductors for access control; and backfill compaction and surface restoration.

11(d): Fill station construction including forming and pouring concrete service pads, bollards, signage, and installation of pre-packaged fill station equipment (nozzle, stand, etc.).

11(e): Installation of access control and connection to existing electrical supply.

This project is located at the existing Water Reclamation Facility, so construction impacts will be minimal.

Deliverables:

- Photographic Documentation of Progress

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PROJECT 4: Fire Department Training Water Recirculation System

IMPLEMENTING AGENCY: Alameda County Fire Department (ACFD)

PROJECT DESCRIPTION: ACFD will purchase four portable training water recirculation systems to incorporate into trainings. These systems will allow the department to train at the required National Fire Protection Association (NFPA) and the fire department standards without excess water loss. The portable water recirculation systems will allow ACFD to continue to train to the required NFPA standards (flowing at full operational capacity), while recapturing water and recirculating it. Through the training implementation component, the recirculation equipment is estimated to conserve approximately 140 acre-feet per year and improve the readiness of the region's first responders. Standard operational guidelines would be developed to modify the training procedures to utilize the portable water recirculating systems.

Budget Category (a): Project Administration

Task 1: Project Management

Manage Grant Agreement including compliance with grant requirements, and preparation and submission of supporting grant documents. Prepare invoices including relevant supporting documentation for submittal to DWR via the Grantee. This task also includes administrative responsibilities associated with the project such as coordinating with partnering agencies and managing consultants/contractors.

Deliverables:

- Invoices and associated backup documentation

Task 2: Reporting

Prepare progress reports detailing work completed during reporting period as outlined in Exhibit F of this Agreement. Submit reports to DWR.

Prepare Project Completion Report and submit to DWR no later than 90 days after project completion for DWR Project Manager's comment and review. The report shall be prepared and presented in accordance with guidance as outlined in Exhibit F.

Deliverables:

- Quarterly Project Progress Reports
- Project Completion Report
- Documentation (e.g., photo) of "Acknowledgment of Credit & Signage" per Standard Condition D.2

Budget Category (b): Land Purchase/Easement

Task 3: Land Purchase

Not applicable.

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Budget Category (c): Planning/Design/Engineering/Environmental Documentation

Task 4: Feasibility Studies

Not applicable.

Task 5: CEQA Documentation

Not applicable.

Task 6: Permitting

Not applicable.

Task 7: Operating Documentation

This project requires modifying ACFD Standard Operating Guidelines for our firefighter and engineer water flow and hydraulics operations. These changes will memorialize the operational use and require how actual water flow, for training purposes, is addressed utilizing these new systems.

Deliverables:

- Updated Operating Guidelines, if requested

Task 8: Project Monitoring Plan

Develop and submit a Project Monitoring Plan per Paragraph 15 for DWR's review and approval.

Deliverables:

- Project Monitoring Plan

Budget Category (d): Construction/Implementation

Task 9: Contract Services

This task must comply with the Standard Condition D.10 – Competitive Bidding and Procurements.

Grantee's contracts with other entities for the acquisition of goods and services and construction of public works with funds provided by State under this Funding Agreement must be in writing and shall comply with all applicable laws and regulations regarding the securing of competitive bids and undertaking competitive negotiations. This task must comply with Alameda County's Procurement Policies and Procedures.

Deliverables:

- Required procurement documentation per Alameda County's Procurement Policies and Procedures.

Task 10: Construction

The implementing agency will perform the following tasks:

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- Purchase and insert four portable training water recirculation systems into service and incorporate into regular trainings (as feasible) for all battalions
    - Units will primarily be based at the ACFD regional training center, their portability allows for them to be moved around the regional training center and offsite for different training scenarios and evolutions
- Provide digital project photos pre/post addition of the systems
- Collect site-specific data on recirculation equipment savings for program evaluation

Deliverables:

- Photographic Documentation of Progress
- DWR Certificate of Project Completion

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EXHIBIT B

BUDGET

AGREEMENT BUDGET SUMMARY

Required Minimum Cost Share: $768,049

	PROJECTS	Grant Amount	Required Cost Share	All Other Cost	Total Cost	Cost Share Waiver
1	Dublin Irrigation System Upgrades	$1,380,000	$460,000	$0	$1,840,000	No
2	Citywide Turf Reduction	$262,500	$87,500	$0	$350,000	No
3	Recycled Water Fill Station	$300,000	$100,000	$0	$400,000	No
4	Fire Department Training Water Recirculation System	$300,000	$120,549	$61,647	$482,196	No
	GRAND TOTAL	**$2,242,500**	**$768,049**	**$61,647**	**$3,072,196**	

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PROJECT 1: Dublin Irrigation System Upgrades

Implementing Agency: City of Dublin

	BUDGET CATEGORY	Grant Amount	Required Cost Share*	All Other Cost	Total Cost
(a)	Project Administration	$0	$5,000	$0	$5,000
(b)	Land Purchase / Easement	$0	$0	$0	$0
(c)	Planning / Design / Engineering / Environmental Documentation	$200,000	$260,000	$0	$460,000
(d)	Construction / Implementation	$1,180,000	$195,000	$0	$1,375,00
	TOTAL COSTS	$1,380,000	$460,000	$0	$1,840,000

NOTES:

* City of Dublin will provide the cost share.

PROJECT 2: Citywide Turf Reduction

Implementing Agency: City of Livermore

	BUDGET CATEGORY	Grant Amount	Required Cost Share*	All Other Cost	Total Cost
(a)	Project Administration	$0	$2,400	$0	$2,400
(b)	Land Purchase / Easement	$0	$0	$0	$0
(c)	Planning / Design / Engineering / Environmental Documentation	$0	$25,000	$0	$25,000
(d)	Construction / Implementation	$262,500	$60,100	$0	$322,600
	TOTAL COSTS	$262,500	$87,500	$0	$350,000

NOTES:

* City of Livermore will provide the cost share unless other non-state funds are obtained.

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PROJECT 3: Recycled Water Fill Station Implementing Agency

Implementing Agency: City of Livermore

	BUDGET CATEGORY	Grant Amount	Required Cost Share*	All Other Cost	Total Cost
(a)	Project Administration	$0	$2,400	$0	$2,400
(b)	Land Purchase / Easement	$0	$0	$0	$0
(c)	Planning / Design / Engineering / Environmental Documentation	$0	$25,000	$0	$25,000
(d)	Construction / Implementation	$300,000	$72,600	$0	$372,600
	TOTAL COSTS	$300,000	$100,000	$0	$400,000

NOTES:

* City of Livermore will provide the cost share unless other non-state funds are obtained.

PROJECT 4: Fire Department Training Water Recirculation System

Implementing Agency: Alameda County Fire Department

	BUDGET CATEGORY	Grant Amount	Required Cost Share*	All Other Cost*	Total Cost
(a)	Project Administration	$0	$0	$2,196	$2,196
(b)	Land Purchase / Easement	$0	$0	$0	$0
(c)	Planning / Design / Engineering / Environmental Documentation	$0	$0	$0	$0
(d)	Construction / Implementation	$300,000	$120,549	$59,451	$480,000
	TOTAL COSTS	$300,000	$120,549	$61,647	$482,196

NOTES:

* Alameda County Fire Department will provide the cost share.

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EXHIBIT C

SCHEDULE

PROJECT 1: Dublin Irrigation System Upgrades

	BUDGET CATEGORY	Start Date	End Date
a	Project Administration	7/1/2023	9/30/2026
b	Land Purchase / Easement	N/A	N/A
c	Planning / Design / Engineering / Environmental Documentation	7/1/2023	1/1/2025
d	Construction / Implementation	6/1/2025	6/31/2026

PROJECT 2: Citywide Turf Reduction

	BUDGET CATEGORY	Start Date	End Date
a	Project Administration	8/1/2023	9/30/2025
b	Land Purchase / Easement	N/A	N/A
c	Planning / Design / Engineering / Environmental Documentation	8/1/2023	8/31/2024
d	Construction / Implementation	9/1/2024	6/30/2025

PROJECT 3: Recycled Water Fill Station

	BUDGET CATEGORY	Start Date	End Date
a	Project Administration	8/1/2023	12/31/2026
b	Land Purchase / Easement	N/A	N/A
c	Planning / Design / Engineering / Environmental Documentation	8/1/2023	12/30/2025
d	Construction / Implementation	1/1/2026	11/30/2026

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PROJECT 4: Fire Department Training Water Recirculation System

	BUDGET CATEGORY	Start Date	End Date
a	Project Administration	3/1/2023	9/1/2025
b	Land Purchase / Easement	N/A	N/A
c	Planning / Design / Engineering / Environmental Documentation	N/A	N/A
d	Construction / Implementation	3/1/2023	6/30/2025

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EXHIBIT D

STANDARD CONDITIONS

D.1. ACCOUNTING AND DEPOSIT OF FUNDING DISBURSEMENT:

A. Separate Accounting of Funding Disbursements: Grantee shall account for the money disbursed pursuant to this Funding Agreement separately from all other Grantee funds. Grantee shall maintain audit and accounting procedures that are in accordance with generally accepted accounting principles and practices, consistently applied. Grantee shall keep complete and accurate records of all receipts and disbursements on expenditures of such funds. Grantee shall require its contractors or subcontractors to maintain books, records, and other documents pertinent to their work in accordance with generally accepted accounting principles and practices. Records are subject to inspection by State at any and all reasonable times.

B. Disposition of Money Disbursed: All money disbursed pursuant to this Funding Agreement shall be deposited in a non-interest-bearing account, administered, and accounted for pursuant to the provisions of applicable law.

C. Remittance of Unexpended Funds: Grantee shall remit to State any unexpended funds that were disbursed to Grantee under this Funding Agreement and were not used to pay Eligible Project Costs within a period of sixty (60) calendar days from the final disbursement from State to Grantee of funds or, within thirty (30) calendar days of the expiration of the Funding Agreement, whichever comes first.

D.2. ACKNOWLEDGEMENT OF CREDIT AND SIGNAGE: Grantee shall include appropriate acknowledgement of credit to the State for its support when promoting the Project or using any data and/or information developed under this Funding Agreement. Signage shall be posted in a prominent location at Project site(s) (if applicable) or at the Grantee's headquarters and shall include the Department of Water Resources color logo and the following disclosure statement: "Funding for this project has been provided in full or in part from the Budget Act of 2021 and through an agreement with the State Department of Water Resources." The Grantee shall also include in each of its contracts for work under this Agreement a provision that incorporates the requirements stated within this Paragraph.

D.3. AMENDMENT: This Funding Agreement may be amended at any time by mutual agreement of the Parties, except insofar as any proposed amendments are in any way contrary to applicable law. Requests by the Grantee for amendments must be in writing stating the amendment request and the reason for the request. Requests solely for a time extension must be submitted at least 90 days prior to the work completion date set forth in Paragraph 2. Any other request for an amendment must be submitted at least 180 days prior to the work completion date set forth in Paragraph 2. State shall have no obligation to agree to an amendment.

D.4. AMERICANS WITH DISABILITIES ACT: By signing this Funding Agreement, Grantee assures State that it complies with the Americans with Disabilities Act (ADA) of 1990, (42 U.S.C. § 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

D.5. AUDITS: State reserves the right to conduct an audit at any time between the execution of this Funding Agreement and the completion of the Project, with the costs of such audit borne

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by State. After completion of the Project, State may require Grantee to conduct a final audit to State's specifications, at Grantee's expense, such audit to be conducted by and a report prepared by an independent Certified Public Accountant. Failure or refusal by Grantee to comply with this provision shall be considered a breach of this Funding Agreement, and State may elect to pursue any remedies provided in Paragraph 11 or take any other action it deems necessary to protect its interests. The Grantee agrees it shall return any audit disallowances to the State.

Pursuant to Government Code section 8546.7, the Grantee shall be subject to the examination and audit by the State for a period of three (3) years after final payment under this Funding Agreement with respect of all matters connected with this Funding Agreement, including but not limited to, the cost of administering this Funding Agreement. All records of Grantee or its contractor or subcontractors shall be preserved for this purpose for at least three (3) years after receipt of the final disbursement under this Agreement.

D.6. BUDGET CONTINGENCY: If the Budget Act of the current year covered under this Funding Agreement does not appropriate sufficient funds for this program, this Funding Agreement shall be of no force and effect. This provision shall be construed as a condition precedent to the obligation of State to make any payments under this Funding Agreement. In this event, State shall have no liability to pay any funds whatsoever to Grantee or to furnish any other considerations under this Funding Agreement and Grantee shall not be obligated to perform any provisions of this Funding Agreement. Nothing in this Funding Agreement shall be construed to provide Grantee with a right of priority for payment over any other Grantee. If funding for any fiscal year after the current year covered by this Funding Agreement is reduced or deleted by the Budget Act, by Executive Order, or by order of the Department of Finance, the State shall have the option to either cancel this Funding Agreement with no liability occurring to State, or offer a Funding Agreement amendment to Grantee to reflect the reduced amount.

D.7. CEQA: Activities funded under this Funding Agreement, regardless of funding source, must be in compliance with the California Environmental Quality Act (CEQA). (Pub. Resources Code, § 21000 et seq.) Any work that is subject to CEQA and funded under this Agreement shall not proceed until documents that satisfy the CEQA process are received by the State's Project Manager and the State has completed its CEQA compliance. Work funded under this Agreement that is subject to a CEQA document shall not proceed until and unless approved by the Department of Water Resources. Such approval is fully discretionary and shall constitute a condition precedent to any work for which it is required. If CEQA compliance by the Grantee is not complete at the time the State signs this Agreement, once State has considered the environmental documents, it may decide to require changes, alterations, or other mitigation to the Project; or to not fund the Project. Should the State decide to not fund the Project, this Agreement shall be terminated in accordance with Paragraph 10.

D.8. CHILD SUPPORT COMPLIANCE ACT: The Grantee acknowledges in accordance with Public Contract Code section 7110, that:

A. The Grantee recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Family Code section 5200 et seq.; and

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B. The Grantee, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.

D.9. CLAIMS DISPUTE: Any claim that the Grantee may have regarding performance of this Agreement including, but not limited to, claims for additional compensation or extension of time, shall be submitted to the DWR Project Representative, within thirty (30) days of the Grantee's knowledge of the claim. State and Grantee shall then attempt to negotiate a resolution of such claim and process an amendment to this Agreement to implement the terms of any such resolution.

D.10. COMPETITIVE BIDDING AND PROCUREMENTS: Grantee's contracts with other entities for the acquisition of goods and services and construction of public works with funds provided by State under this Funding Agreement must be in writing and shall comply with all applicable laws and regulations regarding the securing of competitive bids and undertaking competitive negotiations. If the Grantee does not have a written policy to award contracts through a competitive bidding or sole source process, the Department of General Services' *State Contracting Manual* rules must be followed and are available at: https://www.dgs.ca.gov/OLS/Resources/Page-Content/Office-of-Legal-Services-Resources-List-Folder/State-Contracting.

D.11. COMPUTER SOFTWARE: Grantee certifies that it has appropriate systems and controls in place to ensure that state funds will not be used in the performance of this Funding Agreement for the acquisition, operation, or maintenance of computer software in violation of copyright laws.

D.12. CONFLICT OF INTEREST: All participants are subject to State and Federal conflict of interest laws. Failure to comply with these laws, including business and financial disclosure provisions, will result in the application being rejected and any subsequent contract being declared void. Other legal action may also be taken. Applicable statutes include, but are not limited to, Government Code section 1090 and Public Contract Code sections 10410 and 10411, for State conflict of interest requirements.

A. Current State Employees: No State officer or employee shall engage in any employment, activity, or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any State agency, unless the employment, activity, or enterprise is required as a condition of regular State employment. No State officer or employee shall contract on his or her own behalf as an independent contractor with any State agency to provide goods or services.

B. Former State Employees: For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements, or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.

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C. Employees of the Grantee: Employees of the Grantee shall comply with all applicable provisions of law pertaining to conflicts of interest, including but not limited to any applicable conflict of interest provisions of the California Political Reform Act. (Gov. Code, § 87100 et seq.)

D. Employees and Consultants to the Grantee: Individuals working on behalf of a Grantee may be required by the Department to file a Statement of Economic Interests (Fair Political Practices Commission Form 700) if it is determined that an individual is a consultant for Political Reform Act purposes.

D.13. DELIVERY OF INFORMATION, REPORTS, AND DATA: Grantee agrees to expeditiously provide throughout the term of this Funding Agreement, such reports, data, information, and certifications as may be reasonably required by State.

D.14. DISPOSITION OF EQUIPMENT: Grantee shall provide to State, not less than 30 calendar days prior to submission of the final invoice, an itemized inventory of equipment purchased with funds provided by State. The inventory shall include all items with a current estimated fair market value of more than $5,000.00 per item. Within 60 calendar days of receipt of such inventory State shall provide Grantee with a list of the items on the inventory that State will take title to. All other items shall become the property of Grantee. State shall arrange for delivery from Grantee of items that it takes title to. Cost of transportation, if any, shall be borne by State.

D.15. DRUG-FREE WORKPLACE CERTIFICATION: Certification of Compliance: By signing this Funding Agreement, Grantee, its contractors or subcontractors hereby certify, under penalty of perjury under the laws of State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Gov. Code, § 8350 et seq.) and have or will provide a drug-free workplace by taking the following actions:

A. Publish a statement notifying employees, contractors, and subcontractors that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees, contractors, or subcontractors for violations, as required by Government Code section 8355.

B. Establish a Drug-Free Awareness Program, as required by Government Code section 8355 to inform employees, contractors, or subcontractors about all of the following:

i. The dangers of drug abuse in the workplace,

ii. Grantee’s policy of maintaining a drug-free workplace,

iii. Any available counseling, rehabilitation, and employee assistance programs, and

iv. Penalties that may be imposed upon employees, contractors, and subcontractors for drug abuse violations.

C. Provide, as required by Government Code section 8355, that every employee, contractor, and/or subcontractor who works under this Funding Agreement:

i. Will receive a copy of Grantee’s drug-free policy statement, and

ii. Will agree to abide by terms of Grantee’s condition of employment, contract or subcontract.

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D.16. EASEMENTS: Where the Grantee acquires property in fee title or funds improvements to real property using State funds provided through this Funding Agreement, an appropriate easement or other title restriction providing for floodplain preservation and/or wildlife habitat conservation for the subject property in perpetuity, approved by the State, shall be conveyed to a regulatory or trustee agency or conservation group acceptable to the State. The easement or other title restriction must be in first position ahead of any recorded mortgage or lien on the property unless this requirement is waived by the State.

Where the Grantee acquires an easement under this Agreement, the Grantee agrees to monitor and enforce the terms of the easement, unless the easement is subsequently transferred to another land management or conservation organization or entity with State permission, at which time monitoring and enforcement responsibilities will transfer to the new easement owner.

Failure to provide an easement or other title restriction acceptable to the State may result in termination of this Agreement.

D.17. FINAL INSPECTIONS AND CERTIFICATION OF REGISTERED CIVIL ENGINEER: Upon completion of the Project, Grantee shall provide for a final inspection and certification by a California Registered Civil Engineer that the Project has been completed in accordance with submitted final plans and specifications and any modifications thereto and in accordance with this Funding Agreement.

D.18. GRANTEE'S RESPONSIBILITIES: Grantee and its representatives shall:

A. Faithfully and expeditiously perform or cause to be performed all project work as described in Exhibit A (Work Plan) and in accordance with Project Exhibit B (Budget) and Exhibit C (Schedule).

B. Accept and agree to comply with all terms, provisions, conditions, and written commitments of this Funding Agreement, including all incorporated documents, and to fulfill all assurances, declarations, representations, and statements made by Grantee in the application, documents, amendments, and communications filed in support of its request for funding.

C. Comply with all applicable California, federal, and local laws and regulations.

D. Implement the Project in accordance with applicable provisions of the law.

E. Fulfill its obligations under the Funding Agreement and be responsible for the performance of the Project.

F. Obtain any and all permits, licenses, and approvals required for performing any work under this Funding Agreement, including those necessary to perform design, construction, or operation and maintenance of the Project. Grantee shall provide copies of permits and approvals to State.

G. Be solely responsible for design, construction, and operation and maintenance of projects within the work plan. Review or approval of plans, specifications, bid documents, or other construction documents by State is solely for the purpose of proper administration of funds by State and shall not be deemed to relieve or restrict responsibilities of Grantee under this Agreement.

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H. Be solely responsible for all work and for persons or entities engaged in work performed pursuant to this Agreement, including, but not limited to, contractors, subcontractors, suppliers, and providers of services. The Grantee shall be responsible for any and all disputes arising out of its contracts for work on the Project, including but not limited to payment disputes with contractors and subcontractors. The State will not mediate disputes between the Grantee and any other entity concerning responsibility for performance of work.

D.19. GOVERNING LAW: This Funding Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.

D.20. INDEMNIFICATION: Grantee shall indemnify and hold and save the State, its officers, agents, and employees, free and harmless from any and all liabilities for any claims and damages (including inverse condemnation) that may arise out of the Project and this Agreement, including, but not limited to any claims or damages arising from planning, design, construction, maintenance and/or operation of levee rehabilitation measures for this Project and any breach of this Agreement. Grantee shall require its contractors or subcontractors to name the State, its officers, agents and employees as additional insureds on their liability insurance for activities undertaken pursuant to this Agreement.

D.21. INDEPENDENT CAPACITY: Grantee, and the agents and employees of Grantees, in the performance of the Funding Agreement, shall act in an independent capacity and not as officers, employees, or agents of the State.

D.22. INSPECTION OF BOOKS, RECORDS, AND REPORTS: During regular office hours, each of the parties hereto and their duly authorized representatives shall have the right to inspect and to make copies of any books, records, or reports of either party pertaining to this Funding Agreement or matters related hereto. Each of the parties hereto shall maintain and shall make available at all times for such inspection accurate records of all its costs, disbursements, and receipts with respect to its activities under this Funding Agreement. Failure or refusal by Grantee to comply with this provision shall be considered a breach of this Funding Agreement, and State may withhold disbursements to Grantee or take any other action it deems necessary to protect its interests.

D.23. INSPECTIONS OF PROJECT BY STATE: State shall have the right to inspect the work being performed at any and all reasonable times during the term of the Funding Agreement. This right shall extend to any subcontracts, and Grantee shall include provisions ensuring such access in all its contracts or subcontracts entered into pursuant to its Funding Agreement with State.

D.24. LABOR CODE COMPLIANCE: The Grantee agrees to be bound by all the provisions of the Labor Code regarding prevailing wages and shall monitor all contracts subject to reimbursement from this Agreement to assure that the prevailing wage provisions of the Labor Code are being met. Current Department of Industrial Relations (DIR) requirements may be found at: http://www.dir.ca.gov/ lcp.asp. For more information, please refer to DIR's *Public Works Manual* at: http://www.dir.ca.gov/ dlse/PWManualCombined.pdf. The Grantee affirms that it is aware of the provisions of section 3700 of the Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance, and the Grantee affirms that it will comply with such provisions before commencing

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the performance of the work under this Agreement and will make its contractors and subcontractors aware of this provision.

D.25. MODIFICATION OF OVERALL WORK PLAN: At the request of the Grantee, the State may at its sole discretion approve non-material changes to the portions of Exhibits A, B, and C which concern the budget and schedule without formally amending this Funding Agreement. Non-material changes with respect to the budget are changes that only result in reallocation of the budget and will not result in an increase in the amount of the State Funding Agreement. Non-material changes with respect to the Project schedule are changes that will not extend the term of this Funding Agreement. Requests for non-material changes to the budget and schedule must be submitted by the Grantee to the State in writing and are not effective unless and until specifically approved by the State's Program Manager in writing.

D.26. NONDISCRIMINATION: During the performance of this Funding Agreement, Grantee and its contractors or subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex (gender), sexual orientation, race, color, ancestry, religion, creed, national origin (including language use restriction), pregnancy, physical disability (including HIV and AIDS), mental disability, medical condition (cancer/genetic characteristics), age (over 40), marital/domestic partner status, gender identity, and denial of medial and family care leave or pregnancy disability leave. Grantee and its contractors or subcontractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Grantee and its contractors or subcontractors shall comply with the provisions of the California Fair Employment and Housing Act (Gov. Code, § 12990.) and the applicable regulations promulgated there under (Cal. Code Regs., tit. 2, § 11000 et seq.). The applicable regulations of the Fair Employment and Housing Commission are incorporated into this Agreement by reference. Grantee and its contractors or subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

Grantee shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Funding Agreement.

D.27. OPINIONS AND DETERMINATIONS: Where the terms of this Funding Agreement provide for action to be based upon, judgment, approval, review, or determination of either party hereto, such terms are not intended to be and shall never be construed as permitting such opinion, judgment, approval, review, or determination to be arbitrary, capricious, or unreasonable.

D.28. PERFORMANCE BOND: Where contractors are used, the Grantee shall not authorize construction to begin until each contractor has furnished a performance bond in favor of the Grantee in the following amounts: faithful performance (100%) of contract value, and labor and materials (100%) of contract value. This requirement shall not apply to any contract for less than $25,000.00. Any bond issued pursuant to this paragraph must be issued by a California-admitted surety. (Civ. Code, § 9550, et seq.; Pub. Contract Code, § 7103; Code Civ. Proc., § 995.311.)

D.29. PRIORITY HIRING CONSIDERATIONS: If this Funding Agreement includes services in excess of $200,000, the Grantee shall give priority consideration in filling vacancies in positions funded by the Funding Agreement to qualified recipients of aid under Welfare and Institutions Code section 11200 in accordance with Public Contract Code section 10353.

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D.30. PROHIBITION AGAINST DISPOSAL OF PROJECT WITHOUT STATE PERMISSION: The Grantee shall not sell, abandon, lease, transfer, exchange, mortgage, hypothecate, or encumber in any manner whatsoever all or any portion of any real or other property necessarily connected or used in conjunction with the Project, or with Grantee's service of water, without prior permission of State. Grantee shall not take any action, including but not limited to actions relating to user fees, charges, and assessments that could adversely affect the ability of Grantee meet its obligations under this Funding Agreement, without prior written permission of State. State may require that the proceeds from the disposition of any real or personal property be remitted to State.

D.31. PROJECT ACCESS: The Grantee shall ensure that the State, the Governor of the State, or any authorized representative of the foregoing, will have safe and suitable access to the Project site at all reasonable times during Project construction and thereafter for the term of this Agreement.

D.32. REMAINING BALANCE: In the event the Grantee does not submit invoices requesting all of the funds encumbered under this Grant Agreement, any remaining funds revert to the State. The State will notify the Grantee stating that the Project file is closed and any remaining balance will be disencumbered and unavailable for further use under this Grant Agreement.

D.33. REMEDIES NOT EXCLUSIVE: The use by either party of any remedy specified herein for the enforcement of this Funding Agreement is not exclusive and shall not deprive the party using such remedy of, or limit the application of, any other remedy provided by law.

D.34. RETENTION: The State shall withhold ten percent (10%) of the funds requested by the Grantee for reimbursement of Eligible Project Costs until the Project is completed and Final Report is approved. Any retained amounts due to the Grantee will be promptly disbursed to the Grantee, without interest, upon completion of the Project.

D.35. RIGHTS IN DATA: Grantee agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes and other written or graphic work produced in the performance of this Funding Agreement shall be made available to the State and shall be in the public domain to the extent to which release of such materials is required under the California Public Records Act. (Gov. Code, § 6250 et seq.) Grantee may disclose, disseminate and use in whole or in part, any final form data and information received, collected and developed under this Funding Agreement, subject to appropriate acknowledgement of credit to State for financial support. Grantee shall not utilize the materials for any profit-making venture or sell or grant rights to a third party who intends to do so. The State shall have the right to use any data described in this paragraph for any public purpose.

D.36. SEVERABILITY: Should any portion of this Funding Agreement be determined to be void or unenforceable, such shall be severed from the whole and the Funding Agreement shall continue as modified.

D.37. SUSPENSION OF PAYMENTS: This Funding Agreement may be subject to suspension of payments or termination, or both if the State determines that:

A. Grantee, its contractors, or subcontractors have made a false certification, or

B. Grantee, its contractors, or subcontractors violates the certification by failing to carry out the requirements noted in this Funding Agreement.

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D.38. SUCCESSORS AND ASSIGNS: This Funding Agreement and all of its provisions shall apply to and bind the successors and assigns of the parties. No assignment or transfer of this Funding Agreement or any part thereof, rights hereunder, or interest herein by the Grantee shall be valid unless and until it is approved by State and made subject to such reasonable terms and conditions as State may impose.

D.39. TERMINATION BY GRANTEE: Subject to State approval which may be reasonably withheld, Grantee may terminate this Agreement and be relieved of contractual obligations. In doing so, Grantee must provide a reason(s) for termination. Grantee must submit all progress reports summarizing accomplishments up until termination date.

D.40. TERMINATION FOR CAUSE: Subject to the right to cure under Paragraph 11, the State may terminate this Funding Agreement and be relieved of any payments should Grantee fail to perform the requirements of this Funding Agreement at the time and in the manner herein, provided including but not limited to reasons of default under Paragraph 11.

D.41. TERMINATION WITHOUT CAUSE: The State may terminate this Agreement without cause on 30 days' advance written notice. The Grantee shall be reimbursed for all reasonable expenses incurred up to the date of termination.

D.42. TRAVEL: Travel includes the reasonable and necessary costs of transportation, subsistence, and other associated costs incurred by personnel during the term of this Funding Agreement. Any reimbursement for necessary travel and per diem shall be at rates not to exceed those set by the California Department of Human Resources for excluded employees. These rates may be found at: https://www.calhr.ca.gov/employees/pages/travel-reimbursements.aspx. Reimbursement will be at the State travel and per diem amounts that are current as of the date costs are incurred. No travel outside the State of California shall be reimbursed unless prior written authorization is obtained from the State.

D.43. THIRD PARTY BENEFICIARIES: The parties to this Agreement do not intend to create rights in, or grant remedies to, any third party as a beneficiary of this Agreement, or any duty, covenant, obligation or understanding established herein.

D.44. TIMELINESS: Time is of the essence in this Funding Agreement.

D.45. UNION ORGANIZING: Grantee, by signing this Funding Agreement, hereby acknowledges the applicability of Government Code sections 16645 through 16649 to this Funding Agreement. Furthermore, Grantee, by signing this Funding Agreement, hereby certifies that:

A. No State funds disbursed by this Funding Agreement will be used to assist, promote, or deter union organizing.

B. Grantee shall account for State funds disbursed for a specific expenditure by this Funding Agreement to show those funds were allocated to that expenditure.

C. Grantee shall, where State funds are not designated as described in (b) above, allocate, on a pro rata basis, all disbursements that support the program.

D. If Grantee makes expenditures to assist, promote, or deter union organizing, Grantee will maintain records sufficient to show that no State funds were used for those expenditures and that Grantee shall provide those records to the Attorney General upon request.

D.46. VENUE: The State and the Grantee hereby agree that any action arising out of this Agreement shall be filed and maintained in the Superior Court in and for the County of

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Sacramento, California, or in the United States District Court in and for the Eastern District of California. The Grantee hereby waives any existing sovereign immunity for the purposes of this Agreement.

D.47. WAIVER OF RIGHTS: None of the provisions of this Funding Agreement shall be deemed waived unless expressly waived in writing. It is the intention of the parties here to that from time to time either party may waive any of its rights under this Funding Agreement unless contrary to law. Any waiver by either party of rights arising in connection with the Funding Agreement shall not be deemed to be a waiver with respect to any other rights or matters, and such provisions shall continue in full force and effect.

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EXHIBIT E

AUTHORIZING RESOLUTION

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ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO. 22-90

A Resolution of the Board of Directors of the Alameda County Flood Control and Water Conservation District, Zone 7 Authorizing the Grant Application, Acceptance, and Execution for the Tri-Valley Water Conservation and Resilience Project

WHEREAS, Alameda County Flood Control and Water Conservation District, Zone 7 proposes to implement the Tri-Valley Water Conservation and Resilience Project with local project sponsors;

WHEREAS, Alameda County Flood Control and Water Conservation District, Zone 7 has the legal authority and is authorized to enter into a funding agreement with the State of California; and

WHEREAS, Alameda County Flood Control and Water Conservation District, Zone 7 intends to apply for grant funding from the California Department of Water Resources for the Tri-Valley Water Conservation and Resilience Project;

THEREFORE, BE IT RESOLVED by the Board of Directors of the Alameda County Flood Control and Water Conservation District, Zone 7 as follows:

1. That pursuant and subject to all of the terms and provisions of Budget Act of 2021 (Stats. 2021, ch. 240, § 80) as amended (Stats. 2022, ch. 44, § 25), the Alameda County Flood Control and Water Conservation District, Zone 7, General Manager, or designee is hereby authorized and directed to prepare and file an application for funding with the Department of Water Resources, and take such other actions necessary or appropriate to obtain grant funding.

2. The Alameda County Flood Control and Water Conservation District, Zone 7, General Manager, or designee is hereby authorized and directed to execute the funding agreement with the Department of Water Resources and any amendments thereto.

3. The Alameda County Flood Control and Water Conservation District, Zone 7, General Manager, or designee is hereby authorized and directed to submit any required documents, invoices, and reports required to obtain grant funding.

4. The Alameda County Flood Control and Water Conservation District, Zone 7, General Manager, or designee is hereby authorized and directed to enter into any agreements with local project sponsors necessary to facilitate a regional grant application, project, and administration, including disbursement of funds of funds it receives from DWR to local project sponsors as appropriate and consistent with any grant agreements and amendments with DWR.

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I hereby certify that the foregoing Resolution was duly and regularly adopted by the Board of Directors of the Alameda County Flood Control and Water Conservation District, Zone 7, at the meeting held on November 16, 2022, motion by Director Ramirez Holmes and seconded by Director Benson, motion passed by the following vote:

AYES: DIRECTORS BENSON, FIGUERS, GAMBS, GREEN, PALMER, RAMIREZ HOLMES, SANWONG

NOES: NONE

ABSTAIN: NONE

ABSENT: NONE

DocuSigned by:
FD24C39F3617445...

Sarah Palmer
President, Board of Directors

Attest:

DocuSigned by:
Donna Fabian
9A9BAE9E21714A4...

Donna Fabian
Board Secretary

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EXHIBIT F

REPORT FORMATS AND REQUIREMENTS

The following reporting formats should be utilized. Please obtain State approval prior to submitting a report in an alternative format.

PROGRESS REPORTS

Progress reports shall generally use the following format. This format may be modified as necessary to effectively communicate information. For each project, discuss the following at the task level, as organized in Exhibit A:

- Percent complete (by work)
- Discussion of work accomplished during the reporting period.
- Milestones or deliverables completed/submitted during the reporting period.
- Meetings held or attended.
- Scheduling concerns and issues encountered that may delay completion of the task.

For each project, discuss the following at the project level, as organized in Exhibit A:

- Work anticipated for the next reporting period.
- Photo documentation, as appropriate.
- Any schedule or budget modifications approved by DWR during the reporting period.

PROJECT COMPLETION REPORT

The Project Completion Report (or a Component Completion Report, if a Project has multiple Components) shall generally use the following format provided below for each project after completion.

Executive Summary

The Executive Summary should include a brief summary of project information and include the following items:

- Brief description of work proposed to be done in the original Grant application.
- List any official amendments to this Grant Agreement, with a short description of the amendment.

Reports and/or Products

The following items should be provided, unless already submitted as a deliverable:

- A copy of any final technical report or study, produced for or utilized in this Project as described in the Exhibit A
- Electronic copies of any data collected, not previously submitted
- Discussion of problems that occurred during the work and how those problems were resolved

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- Final project schedule showing actual progress versus planned progress as shown in Exhibit C

Additional information that may be applicable for implementation projects includes the following:

- Record drawings
- Final geodetic survey information
- Project photos

Cost & Disposition of Funds

A list showing:

- Summary of Project costs including the following items:
  - Accounting of the cost of project expenditure;
  - Include all internal and external costs not previously disclosed (i.e., additional cost share); and
  - A discussion of factors that positively or negatively affected the project cost and any deviation from the original Project cost estimate.

Additional Information

- Benefits derived from the Project, with quantification of such benefits provided.
- If applicable, Certification from a California Registered Professional (Civil Engineer or Geologist, as appropriate), consistent with Exhibit D, that the project was conducted in accordance with the approved Work Plan in Exhibit A and any approved amendments thereto.
- Submittal schedule for the Post-Performance Report.

GRANT COMPLETION REPORT

The Grant Completion Report shall generally use the following format. This format may be modified as necessary to effectively communicate information on the various projects funded by this Grant Agreement, and includes the following:

- Executive Summary: consisting of a maximum of ten (10) pages summarizing information for the grant as well as the individual projects.
- Brief discussion whether the level, type, or magnitude of benefits of each project are comparable to the original project proposal; any remaining work to be completed and mechanism for their implementation; and a summary of final funds disbursement for each project.

Additional Information: Summary of the submittal schedule for the Post-Performance Reports applicable for the projects in this Grant Agreement.

POST-PERFORMANCE REPORT

The Post-Performance Report (PPR) should be concise and focus on how each project is performing compared to its expected performance; whether the project is being operated and maintained and providing intended benefits as proposed. A PPR template may be provided by the assigned DWR

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Grant Manager upon request. The PPR should follow the general format of the template and provide requested information as applicable. The following information, at a minimum, shall be provided:

Reports and/or products

- Header including the following:
  - Grantee Name
  - Implementing Agency (if different from Grantee)
  - Grant Agreement Number
  - Project Name
  - Funding grant source
  - Report number

- Post-Performance Report schedule
- Time period of the annual report (e.g., January 2018 through December 2018)
- Project Description Summary
- Discussion of the project benefits
- An assessment of any differences between the expected versus actual project benefits as stated in the original application. Where applicable, the reporting should include quantitative metrics (e.g., new acre-feet of water produced that year, etc.).
- Summary of any additional costs and/or benefits deriving from the project since its completion, if applicable.
- Any additional information relevant to or generated by the continued operation of the project.

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EXHIBIT G

REQUIREMENTS FOR DATA SUBMITTAL

Surface and Groundwater Quality Data:

If applicable, groundwater quality and ambient surface water quality monitoring data that include chemical, physical, or biological data shall be submitted to the State as described below, with a narrative description of data submittal activities included in project reports.

Surface water quality monitoring data shall be prepared for submission to the California Environmental Data Exchange Network (CEDEN). The CEDEN data templates are available on the CEDEN website. Inclusion of additional data elements described on the data templates is desirable. Data ready for submission should be uploaded to your CEDEN Regional Data Center via the CEDEN website. CEDEN website: http://www.ceden.org.

If a project's Work Plan contains a groundwater ambient monitoring element, groundwater quality monitoring data shall be submitted to the State for inclusion in the State Water Resources Control Board's Groundwater Ambient Monitoring and Assessment (GAMA) Program Information on the GAMA Program can be obtained at: https://www.waterboards.ca.gov/water_issues/programs/gama/. If further information is required, the Grantee can contact the State Water Resources Control Board (SWRCB) GAMA Program. A listing of SWRCB staff involved in the GAMA program can be found at: https://www.waterboards.ca.gov/water_issues/programs/gama/contact.shtml.

Groundwater Level Data

For each project that collects groundwater level data, the Grantee will need to submit this data to DWR's Water Data Library (WDL), with a narrative description of data submittal activities included in project reports, as described in Exhibit F, "Report Formats and Requirements." Information regarding the WDL and in what format to submit data in can be found at: http://www.water.ca.gov/waterdatalibrary/.

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EXHIBIT H

STATE AUDIT DOCUMENT REQUIREMENTS AND COST SHARE REQUIREMENTS FOR THE GRANTEE

The following provides a list of documents typically required by State Auditors and general guidelines for the Grantee. List of documents pertains to both State funding and the Grantee's Local Cost Share and details the documents/records that State Auditors would need to review in the event of this Grant Agreement is audited. The Grantee should ensure that such records are maintained for each funded project.

State Audit Document Requirements

Internal Controls

1. Organization chart (e.g., Agency's overall organization chart and organization chart for the State funded Program/Project).
2. Written internal procedures and flowcharts for the following:
   a) Receipts and deposits
   b) Disbursements
   c) State reimbursement requests
   d) Expenditure tracking of State funds
   e) Guidelines, policy, and procedures on State funded Program/Project
3. Audit reports of the Agency internal control structure and/or financial statements within the last two years.
4. Prior audit reports on the State funded Program/Project.

State Funding:

1. Original Grant Agreement, any amendment(s) and budget modification documents.
2. A listing of all bond-funded grants, loans, or subventions received from the State.
3. A listing of all other funding sources for each Program/Project.

Contracts:

1. All subcontractor and consultant contracts and related or partners' documents, if applicable.
2. Contracts between the Agency and member agencies as related to the State funded Program/Project.

Invoices:

1. Invoices from vendors and subcontractors for expenditures submitted to the State for payments under the Grant Agreement.
2. Documentation linking subcontractor invoices to State reimbursement, requests and related Grant Agreement budget line items.
3. Reimbursement requests submitted to the State for the Grant Agreement.

Cash Documents:

1. Receipts (copies of warrants) showing payments received from the State.
2. Deposit slips (or bank statements) showing deposit of the payments received from the State.
3. Cancelled checks or disbursement documents showing payments made to vendors, subcontractors, consultants, and/or agents under the grants or loans.

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4. Bank statements showing the deposit of the receipts.

Accounting Records:

1. Ledgers showing entries for funding receipts and cash disbursements.
2. Ledgers showing receipts and cash disbursement entries of other funding sources.
3. Bridging documents that tie the general ledger to requests for Grant Agreement reimbursement.

Administration Costs:

1. Supporting documents showing the calculation of administration costs.

Personnel:

1. List of all contractors and Agency staff that worked on the State funded Program/Project.
2. Payroll records including timesheets for contractor staff and the Agency personnel who provided services charged to the program

Project Files:

1. All supporting documentation maintained in the project files.
2. All Grant Agreement related correspondence.

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EXHIBIT I

LOCAL PROJECT SPONSORS AND PROJECT LOCATIONS

The Grantee has assigned, for each project, a Local Project Sponsor (LPS). LPSs may act on behalf of the Grantee for the purposes of individual project management, oversight, compliance, and operations and maintenance. LPSs are identified for each sponsored Project below:

Local Project Sponsor Agency Designation

Sponsored Project: Project 1: Dublin Irrigation System Upgrades

Sponsor Agency: City of Dublin

Agency Address: 100 Civic Plaza, Dublin CA 94568

Project Location: Dublin, CA 94568

Local Project Sponsor Agency Designation

Sponsored Project: Project 2: Citywide Turf Reduction

Sponsor Agency: City of Livermore

Agency Address: 3500 Robertson Park Road

Project Location: Livermore, CA 94550

Local Project Sponsor Agency Designation

Sponsored Project: Project 3: Recycled Water Fill Station

Sponsor Agency: City of Livermore

Agency Address: 101 West Jack London Blvd.

Project Location: Livermore, CA 94551

Local Project Sponsor Agency Designation

Sponsored Project: Project 4: Fire Department Training Water Recirculation System

Sponsor Agency: Alameda County Fire Department

Agency Address: 6363 Clark Ave., Dublin, CA 94568

Project Location: Castro Valley, Dublin, Newark, San Leandro, and Union City, CA.

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EXHIBIT J

APPRAISAL SPECIFICATIONS

For property acquisitions funded by this Grant Agreement, the Grantee shall submit an appraisal for review and approval by the Department of General Services or DWR's Real Estate Branch prior to reimbursement or depositing State funds into an escrow account. This information should be submitted at least 90 days prior to a reimbursement request to account for review time. All appraisal reports, regardless of report format, shall include all applicable Appraisal Specifications below. Appraisals for a total compensation of $150,000 or more shall be reported as a Self-Contained Appraisal Report. Appraisals for a total compensation of less than $150,000 may be reported as a Summary Appraisal Report, which includes all information necessary to arrive at the appraiser's conclusion. Appraisal Specifications 14, 16, 21, 23-25, and 28 shall be a narrative analysis regardless of the reporting format.

1. Title page with sufficient identification of appraisal assignment.
2. Letter of transmittal summarizing important assumptions and conclusions, value estimate, date of value and date of report.
3. Table of contents.
4. Assumptions and Limiting Conditions, Extraordinary Assumptions, and Hypothetical Conditions as needed.
5. Description of the scope of work, including the extent of data collection and limitations, if any, in obtaining relevant data.
6. Definition of Fair Market Value, as defined by California Code of Civil Procedure, § 1263.320.
7. Photographs of subject property and comparable data, including significant physical features and the interior of structural improvements, if applicable.
8. Copies of Tax Assessor's plat map with the subject marked along with all contiguous assessor's parcels that depict the ownership.
9. A legal description of the subject property, if available.
10. For large, remote or inaccessible parcels, provide aerial photographs or topographical maps depicting the subject boundaries.
11. Three (3) year subject property history, including sales, listings, leases, options, zoning, applications for permits, or other documents or facts that might indicate or affect use or value.
12. Discussion of any current Agreement of Sale, option, or listing of subject property. This issue required increased diligence since state agencies often utilize non-profit organizations to quickly acquire sensitive habitat parcels using Option Agreements. However, due to confidentiality clauses, the terms of the Option are often not disclosed to the State. If the appraiser discovers evidence of an Option or the possible existence of an Option, and the terms cannot be disclosed due to a confidentiality clause, then the appraiser is to cease work and contact the client.

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13. Regional, area, and neighborhood analyses. This information may be presented in a summary format.
14. Market conditions and trends including identification of the relevant market area, a discussion of supply and demand within the relevant market area, and a discussion of the relevant market factors impacting demand for site acquisition and leasing within the relevant market area. This information may be presented in a summary format.
15. Discussion of subject land/site characteristics (size, topography, current use, elevations, zoning and land use issues, development entitlements, General Plan designation, utilities, offsite improvements, access, land features such as levees and creeks, offsite improvements, easements and encumbrances, covenants, conditions and restrictions, flood and earthquake information, toxic hazards, water rights, mineral rights, toxic hazards, taxes and assessments, etc.).
16. Description of subject improvements including all structures, square footage, physical age, type of construction, quality of construction, condition of improvements and/or identification of any permanent plantings. Discussion of construction cost methodology, costs included and excluded, accrued depreciation from all causes, remaining economic life, items of deferred maintenance and cost to cure, and incurable items. Construction cost data shall include cost data source, date of estimate or date of publication of cost manual, section and page reference of cost manual, copies of cost estimate if provided from another source, replacement or reproduction cost method used, and supporting calculations including worksheets or spreadsheets.
17. Subject property leasing and operating cost history, including all items of income and expense.
18. Analysis and conclusion of the larger parcel for partial taking appraisals. For partial taking appraisals, Appraisal Specifications generally apply to the larger parcel rather than an ownership where the larger parcel is not the entire ownership.
19. Include a copy of a recent preliminary title report (within the past year) as an appraisal exhibit. Discuss the title exceptions and analyze the effect of title exceptions on fair market value.
20. For appraisals of partial takings or easements, a detailed description of the taking or easement area including surface features and topography, easements, encumbrances or improvements including levees within the subject partial take or easement, and whether the take area is characteristic of the larger parcel. Any characteristics of the taking area, including existing pre-project levees that render the take area different from the larger parcel shall be addressed in the valuation.
21. Opinion of highest and best use for the subject property, based on an in-depth analysis supporting the concluded use which includes the detail required by the complexity of the analysis. Such support typically requires a discussion of the four criteria of tests utilized to determine the highest and best use of a property. If alternative feasible uses exist, explain and support market, development, cash flow, and risk factors leading to an ultimate highest and best use decision.
22. All approaches to market value applicable to the property type and in the subject market. Explain and support the exclusion of any usual approaches to value.

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23. Map(s) showing all comparable properties in relation to the subject property.
24. Photographs and plat maps of comparable properties.
25. In-depth discussion of comparable properties, similarities and differences compared to the subject property, adjustments to the comparable data, and discussion of the reliability and credibility of the data as it relates to the indicated subject property value. Improved comparable sales which are used to compare to vacant land subject properties shall include an allocation between land and improvements, using methodology similar to methodology used in item 16 above to estimate improvement value when possible, with an explanation of the methodology used.
26. Comparable data sheets.
    a. For sales, include information on grantor/Grantee, sale/recordation dates, listed or asking price as of the date of sale, highest and best use, financing, conditions of sale, buyer motivation, sufficient location information (street address, post mile, and/or distance from local landmarks such as bridges, road intersections, structures, etc.), land/site characteristics, improvements, source of any allocation of sale price between land and improvements, and confirming source.
    b. For listings, also include marketing time from list date to effective date of the appraisal, original list price, changes in list price, broker feedback, if available.
    c. For leases, include significant information such as lessor/lessee, lease date and term, type of lease, rent and escalation, expenses, size of space leased, tenant improvement allowance, concessions, use restrictions, options, and confirming source. When comparing improved sales to a vacant land subject, the contributory value of the improvements shall be segregated from the land value.
27. For appraisals of easements, a before and after analysis of the burden of the easement on the fee, with attention to how the easement affects highest and best use in the after condition. An Easement Valuation Matrix or generalized easement valuation references may be used ONLY as a reference for a secondary basis of value.
28. For partial taking and easement appraisals, valuation of the remainder in the after condition and analysis and identification of any change in highest and best use or other characteristics in the after condition, to establish severance damages to the remainder in the after condition, and a discussion of special and general benefits, and cost to cure damages or construction contract work.
29. There are occasions where properties involve water rights, minerals, or salable timber that require separate valuations. If an appraisal assignment includes water rights, minerals, or merchantable timber that requires separate valuation, the valuation of the water rights, minerals, or merchantable timber shall be completed by a credentialed subject matter specialist.
30. For partial taking and easement appraisals, presentation of the valuation in California partial taking acquisition required format.
31. Implied dedication statement.

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32. Reconciliation and final value estimate. Include analysis and comparison of the comparable sales to the subject, and explain and support conclusions reached.
33. Discussion of any departures taken in the development of the appraisal.
34. Signed Certification consistent with the language found in Uniform Standards of Professional Appraisal Practice.
35. If applicable, in addition to the above, appraisals of telecommunication sites shall also provide:
    a. A discussion of market conditions and trends including identification of the relevant market, a discussion of supply and demand within the relevant market area and a discussion of the relevant market factors impacting demand for site acquisition and leasing within the relevant market area.
    b. An analysis of other leases comparable to subject property. Factors to be discussed in the analysis include the latitude, longitude, type of tower, tower height, number of rack spaces, number of racks occupied, placement of racks, power source and adequacy, back-up power, vault and site improvements description and location on site, other utilities; access, and road maintenance costs.

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EXHIBIT K

INFORMATION NEEDED FOR ESCROW PROCESSING AND CLOSURE

The Grantee shall provide the following documents to the State Project Representative during the escrow process. Property acquisition escrow documents shall be submitted within the term of this Grant Agreement and after a qualified appraisal has been approved.

- Name and Address of Title Company Handling the Escrow
- Escrow Number
- Name of Escrow Officer
- Escrow Officer's Phone Number
- Dollar Amount Needed to Close Escrow
- Legal Description of Property Being Acquired
- Assessor's Parcel Number(s) of Property Being Acquired
- Copy of Title Insurance Report
- Entity Taking Title as Named Insured on Title Insurance Policy
- Copy of Escrow Instructions in Draft Form Prior to Recording for Review Purposes
- Copy of Final Escrow Instructions
- Verification that all Encumbrances (i.e., Liens, Back Taxes, and Similar Obligations) have been Cleared Prior to Recording the Deed to Transfer Title
- Copy of Deed for Review Purposes Prior to Recording
- Copy of Deed as Recorded in County Recorder's Office
- Copy of Escrow Closure Notice

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EXHIBIT L

PROJECT MONITORING PLAN GUIDANCE

Introduction

For each project contained in Exhibit A, please include a brief description of the project (maximum ~150 words) including project location, implementation elements, need for the project (what problem will the project address) and responds to the requirements listed below.

Project Monitoring Plan Requirements

The Project Monitoring Plan shall contain responses to the following questions:

- What are the anticipated project physical benefits?
- What are the corresponding numeric targets for each project benefit?
- How will proposed numeric targets be measured?
- What are baseline conditions?
- When will the targets be met (e.g., upon project completion, five years after completion)?
- How often will monitoring be undertaken (e.g., monthly, yearly).
- Where are monitoring point locations (e.g., meter located at…, at stream mile…)? Include relevant maps.
- How will the project be maintained (e.g., irrigation, pest management, weed abatement)?
- What will be the frequency and duration of maintenance proposed activities?
- Are there any special environmental considerations (e.g., resource agency requirements, permit requirements, CEQA/NEPA mitigation measures)?
- Who is responsible for collecting the samples (i.e., who is conducting monitoring and/or maintenance)?
- How, and to whom, will monitoring results be reported (e.g., paper reports, online databases, public meetings)?
- What adaptive management strategies will be employed if problems are encountered during routine monitoring or maintenance?
- What is the anticipated life of the project?

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EXHIBIT M

INVOICE GUIDANCE FOR ADMINISTRATIVE AND OVERHEAD CHARGES

The funds provided pursuant to this Agreement may only be used for costs that are directly related to the funded Project. The following provides a list of typical requirements for invoicing, specifically providing guidance on the appropriate methods for invoicing administrative and direct overhead charges.

Administration Charges

Indirect and General Overhead (i.e., indirect overhead) charges are not an allowable expense for reimbursement. However, administrative expenses that are apportioned directly to the project are eligible for reimbursement. Cost such as rent, office supplies, fringe benefits, etc. can be “Direct Costs” and are eligible expenses as long as:

- There is a consistent, articulated method for how the costs are allocated that is submitted and approved by the Grant Manager. The allocation method must be fully documented for auditors.
- A “fully-burdened labor rate” can be used to capture allowable administrative costs.
- The administrative/overhead costs can never include:
    - Non-project specific personnel and accounting services performed within the Grantee or an LPS’ organization
    - Generic markup
    - Tuition
    - Conference fees
    - Building and equipment depreciation or use allowances
- Using a general overhead percentage is never allowed

Labor Rates

The Grantee must provide DWR with supporting documentation for personnel hours (see personnel billing rates letter in example invoice packet). The personnel rate letter should be submitted to the DWR Grant Manager prior to submittal of the first invoice. The supporting documentation must include, at a minimum, employee classifications that will reimbursed by grant funds and the corresponding hourly rate range. These rates should be “burdened”; the burdened rate must be consistent with the Grantee’s/Local Project Sponsors standardized allocation methodology. The supporting documentation should also provide an explanation of what costs make up the burdened rate and how those costs were determined. This information will be used to compare against personnel hours summary table invoice back up documentation. Periodic updates may be needed during the life of the grant which would be handled through a revised billing rate letter.

Attachment 2: LPS Resolution

Placeholder for LPS's Board Resolution authorizing execution of this agreement

LIVERMORE
CALIFORNIA

CITY COUNCIL STAFF REPORT **ITEM NO. 5.4**

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Judy Erlandson, Acting Public Works Director

SUBJECT: Resolution authorizing execution of a purchase order with Belkorp Ag. LLC, for two John Deere Track Steer Loaders and associated equipment in the not-to-exceed amount of $203,260.

RECOMMENDED ACTION

Staff recommends the City Council adopt a resolution authorizing the City Manager to execute a purchase order with Belkorp Ag. LLC for two replacement John Deere Track Steer Loaders and associated equipment in the not-to-exceed amount of $203,260.

SUMMARY

Based on the City of Livermore's Fleet Policy and the 25-year Fleet Replacement Plan, it is time to replace two existing tractors. Staff has determined that the units that best meet the needs of both the Maintenance Division and the Water Resources Division are the John Deere 325G Track Loader with mower and concrete planer attachments for the Maintenance Division, and the John Deere 317G Track Loader for Water Resources Division. Belkorp AG LLC is the local Sourcewell contractor for John Deere Company in Stockton, California.

DISCUSSION

The City of Livermore's Fleet Policy guideline recommends replacement of large tractors at 10 years or 6,000 hours. Staff will be replacing two 1993 Bobcat 853 skid steer loaders, Vehicle 1223 from the Maintenance Division and Vehicle 6328 from Water Resources. The replacement of these two tractors will lower the operating costs and reduce downtime for preventive maintenance when kept in compliance with the manufacturers' recommendation. The replacement tractors will also increase efficiencies in the mowing/weed abatement program, street repairs and storm water channel maintenance. These two new tractors will decrease downtime due to breakdowns on the existing aging units. The purchase of these tractors through a cooperative purchasing agreement will expedite the delivery of the equipment. This equipment meets the operational needs and fits the criteria specified by the City of Livermore Water Resources and Maintenance Divisions.

Livermore Municipal Code (LMC) Section 2.68.370 requires competitive bidding for services and supplies exceeding $50,000. LMC Section 2.68.390, however, allows for procurement to be completed without individual bidding when done so through a cooperative purchasing arrangement. This alternate procedure is allowed regardless of whether the City is a named party to the agreement or an actual participant in such a program. The proposed procurement of this replacement John Deere track steer loaders with attachments uses the Sourcewell public procurement collective agreement.

Both the John Deere 325G and the John Deere 317G track steer loaders will be utilized by both Divisions for a wide variety of uses. They both have the capability of operating with many different types of attachments. The Maintenance Division will utilize the John Deere 325G model for weed abatement, street grinding, broom sweeper cleanup, and material handling throughout the City. The Water Resources Division will utilize the John Deere 317G model for material handling, broom sweeper cleanup at the Water Reclamation Plant and storm water channel cleanup as needed.

Staff recommends purchasing these replacement John Deere tractors utilizing Sourcewell Acceptance and Award contract #011723-JDC. The Sourcewell bid procedure for the replacement tractors meets the City's municipal code requirement, and therefore, can be awarded to Belkorp Ag. LLC, the local dealer for Deere and Company. Belkorp Ag. LLC in Stockton, California is the local government dealer for Deere and Company tractor sales, warranty and service in Northern California. Section 2.B. in Sourcewell' s agreement with Deere and Company allows the City to use a qualified dealer like Belkorp Ag. LLC for a direct purchase.

FISCAL AND ADMINISTRATIVE IMPACTS

The replacement purchase of the two John Deere track loaders is budgeted in the Fleet Internal Service Fund for FY 2023-24 and is identified in the Fleet Master 25-year Replacement plan.

COMMUNITY PILLAR

1: A City That Works

GOAL

14: Develop, operate, and maintain the City's infrastructure.

ATTACHMENTS

1. John Deere Construction Sourcewell Contract
2. Belkorp AG. LLC Quotation
3. Resolution

Prepared by: Scott Kooreman
Public Works Supervisor

Approved by:

Marianna Marysheva
City Manager

Fiscal Review by:

Tina Olson
Administrative Services Director

Solicitation Number: RFP # 011723

CONTRACT

This Contract is between Sourcewell, 202 12th Street Northeast, P.O. Box 219, Staples, MN 56479 (Sourcewell) and John Deere Construction Retail Sales a division of John Deere Shared Services LLC, DBA John Deere Construction Retail Sales, 1300 River Drive, Moline, IL 61265 (Supplier).

Sourcewell is a State of Minnesota local government unit and service cooperative created under the laws of the State of Minnesota (Minnesota Statutes Section 123A.21) that offers cooperative procurement solutions to government entities. Participation is open to eligible federal, state/province, and municipal governmental entities, higher education, K-12 education, nonprofit, tribal government, and other public entities located in the United States and Canada. Sourcewell issued a public solicitation for Heavy Construction Equipment with Related Attachments and Technology from which Supplier was awarded a contract.

Supplier desires to contract with Sourcewell to provide equipment, products, or services to Sourcewell and the entities that access Sourcewell's cooperative purchasing contracts (Participating Entities).

1. TERM OF CONTRACT

A. EFFECTIVE DATE. This Contract is effective upon the date of the final signature below.

B. EXPIRATION DATE AND EXTENSION. This Contract expires April 14, 2027, unless it is cancelled sooner pursuant to Article 22. This Contract may be extended one additional year upon the request of Sourcewell and written agreement by Supplier.

C. SURVIVAL OF TERMS. Notwithstanding any expiration or termination of this Contract, all payment obligations incurred prior to expiration or termination will survive, as will the following: Articles 11 through 14 survive the expiration or cancellation of this Contract. All other rights will cease upon expiration or termination of this Contract.

2. EQUIPMENT, PRODUCTS, OR SERVICES

A. EQUIPMENT, PRODUCTS, OR SERVICES. Supplier will provide the Equipment, Products, or Services as stated in its Proposal submitted under the Solicitation Number listed above.

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Supplier's Equipment, Products, or Services Proposal (Proposal) is attached and incorporated into this Contract.

All Equipment and Products provided under this Contract must be new and the current model. Supplier may offer close-out or refurbished Equipment or Products if they are clearly indicated in Supplier's product and pricing list. Unless agreed to by the Participating Entities in advance, Equipment or Products must be delivered as operational to the Participating Entity's site.

This Contract offers an indefinite quantity of sales, and while substantial volume is anticipated, sales and sales volume are not guaranteed.

B. WARRANTY. Supplier warrants that all Equipment, Products, and Services furnished are free from liens and encumbrances, and are free from defects in design, materials, and workmanship. In addition, Supplier warrants the Equipment, Products, and Services are suitable for and will perform in accordance with the ordinary use for which they are intended. Supplier's dealers and distributors must agree to assist the Participating Entity in reaching a resolution in any dispute over warranty terms with the manufacturer. Any manufacturer's warranty that extends beyond the expiration of the Supplier's warranty will be passed on to the Participating Entity.

C. DEALERS, DISTRIBUTORS, AND/OR RESELLERS. Upon Contract execution and throughout the Contract term, Supplier must provide to Sourcewell a current means to validate or authenticate Supplier's authorized dealers, distributors, or resellers relative to the Equipment, Products, and Services offered under this Contract, which will be incorporated into this Contract by reference. It is the Supplier's responsibility to ensure Sourcewell receives the most current information.

3. PRICING

All Equipment, Products, or Services under this Contract will be priced at or below the price stated in Supplier's Proposal.

When providing pricing quotes to Participating Entities, all pricing quoted must reflect a Participating Entity's total cost of acquisition. This means that the quoted cost is for delivered Equipment, Products, and Services that are operational for their intended purpose, and includes all costs to the Participating Entity's requested delivery location.

Regardless of the payment method chosen by the Participating Entity, the total cost associated with any purchase option of the Equipment, Products, or Services must always be disclosed in the pricing quote to the applicable Participating Entity at the time of purchase.

A. SHIPPING AND SHIPPING COSTS. All delivered Equipment and Products must be properly packaged. Damaged Equipment and Products may be rejected. The John Deere Warranty Statement describes covered items and services when returning Damaged Equipment and

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Products. Participating Entities reserve the right to inspect the Equipment and Products at a reasonable time after delivery where circumstances or conditions prevent effective inspection of the Equipment and Products at the time of delivery. In the event of the delivery of nonconforming Equipment and Products, the Participating Entity will notify the Supplier as soon as possible and the Supplier will replace nonconforming Equipment and Products with conforming Equipment and Products that are acceptable to the Participating Entity. Sourcewell may declare the Supplier in breach of this Contract if the Supplier intentionally delivers substandard or inferior Equipment or Products.

B. SALES TAX. Each Participating Entity is responsible for supplying the Supplier with valid tax-exemption certification(s). When ordering, a Participating Entity must indicate if it is a tax-exempt entity.

C. HOT LIST PRICING. At any time during this Contract, Supplier may offer a specific selection of Equipment, Products, or Services at discounts greater than those listed in the Contract. When Supplier determines it will offer Hot List Pricing, it must be submitted electronically to Sourcewell in a line-item format. Equipment, Products, or Services may be added or removed from the Hot List at any time through a Sourcewell Price and Product Change Form as defined in Article 4 below.

Hot List program and pricing may also be used to discount and liquidate close-out and discontinued Equipment and Products as long as those close-out and discontinued items are clearly identified as such. Current ordering process and administrative fees apply. Hot List Pricing must be published and made available to all Participating Entities.

4. PRODUCT AND PRICING CHANGE REQUESTS

Supplier may request Equipment, Product, or Service changes, additions, or deletions at any time. All requests must be made in writing by submitting a signed Sourcewell Price and Product Change Request Form to the assigned Sourcewell Supplier Development Administrator. This approved form is available from the assigned Sourcewell Supplier Development Administrator. At a minimum, the request must:

- Identify the applicable Sourcewell contract number;
- Clearly specify the requested change;
- Provide sufficient detail to justify the requested change;
- Individually list all Equipment, Products, or Services affected by the requested change, along with the requested change (e.g., addition, deletion, price change); and
- Include a complete restatement of pricing documentation in Microsoft Excel with the effective date of the modified pricing, or product addition or deletion. The new pricing restatement must include all Equipment, Products, and Services offered, even for those items where pricing remains unchanged.

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A fully executed Sourcewell Price and Product Request Form will become an amendment to this Contract and will be incorporated by reference.

5. PARTICIPATION, CONTRACT ACCESS, AND PARTICIPATING ENTITY REQUIREMENTS

A. PARTICIPATION. Sourcewell's cooperative contracts are available and open to public and nonprofit entities across the United States and Canada; such as federal, state/province, municipal, K-12 and higher education, tribal government, and other public entities.

The benefits of this Contract should be available to all Participating Entities that can legally access the Equipment, Products, or Services under this Contract. A Participating Entity's authority to access this Contract is determined through its cooperative purchasing, interlocal, or joint powers laws. Any entity accessing benefits of this Contract will be considered a Service Member of Sourcewell during such time of access. Supplier understands that a Participating Entity's use of this Contract is at the Participating Entity's sole convenience and Participating Entities reserve the right to obtain like Equipment, Products, or Services from any other source.

Supplier is responsible for familiarizing its sales and service forces with Sourcewell contract use eligibility requirements and documentation and will encourage potential participating entities to join Sourcewell. Sourcewell reserves the right to add and remove Participating Entities to its roster during the term of this Contract.

B. PUBLIC FACILITIES. Supplier's employees may be required to perform work at government-owned facilities, including schools. Supplier's employees and agents must conduct themselves in a professional manner while on the premises, and in accordance with Participating Entity policies and procedures, and all applicable laws.

6. PARTICIPATING ENTITY USE AND PURCHASING

A. ORDERS AND PAYMENT. To access the contracted Equipment, Products, or Services under this Contract, a Participating Entity must clearly indicate to Supplier that it intends to access this Contract; however, order flow and procedure will be developed jointly between Sourcewell and Supplier. Typically, a Participating Entity will issue an order directly to Supplier or its authorized subsidiary, distributor, dealer, or reseller. If a Participating Entity issues a purchase order, it may use its own forms, but the purchase order should clearly note the applicable Sourcewell contract number. All Participating Entity orders under this Contract must be issued prior to expiration or cancellation of this Contract; however, Supplier performance, Participating Entity payment obligations, and any applicable warranty periods or other Supplier or Participating Entity obligations may extend beyond the term of this Contract.

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Supplier's acceptable forms of payment are included in its attached Proposal. Participating Entities will be solely responsible for payment and Sourcewell will have no liability for any unpaid invoice of any Participating Entity.

B. ADDITIONAL TERMS AND CONDITIONS/PARTICIPATING ADDENDUM. Additional terms and conditions to a purchase order, or other required transaction documentation, may be negotiated between a Participating Entity and Supplier, such as job or industry-specific requirements, legal requirements (e.g., affirmative action or immigration status requirements), or specific local policy requirements. Some Participating Entities may require the use of a Participating Addendum, the terms of which will be negotiated directly between the Participating Entity and the Supplier or its authorized dealers, distributors, or resellers, as applicable. Any negotiated additional terms and conditions must never be less favorable to the Participating Entity than what is contained in this Contract.

C. SPECIALIZED SERVICE REQUIREMENTS. In the event that the Participating Entity requires service or specialized performance requirements not addressed in this Contract (such as e-commerce specifications, specialized delivery requirements, or other specifications and requirements), the Participating Entity and the Supplier may enter into a separate, standalone agreement, apart from this Contract. Sourcewell, including its agents and employees, will not be made a party to a claim for breach of such agreement.

D. TERMINATION OF ORDERS. Participating Entities may terminate an order, in whole or in part, immediately upon notice to Supplier in the event of any of the following events:

1. The Participating Entity fails to receive funding or appropriation from its governing body at levels sufficient to pay for the equipment, products, or services to be purchased; or
2. Federal, state, or provincial laws or regulations prohibit the purchase or change the Participating Entity's requirements.

E. GOVERNING LAW AND VENUE. The governing law and venue for any action related to a Participating Entity's order will be determined by the Participating Entity making the purchase.

7. CUSTOMER SERVICE

A. PRIMARY ACCOUNT REPRESENTATIVE. Supplier will assign an Account Representative to Sourcewell for this Contract and must provide prompt notice to Sourcewell if that person is changed. The Account Representative will be responsible for:

- Maintenance and management of this Contract;
- Timely response to all Sourcewell and Participating Entity inquiries; and
- Business reviews to Sourcewell and Participating Entities, if applicable.

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B. BUSINESS REVIEWS. Supplier must perform a minimum of one business review with Sourcewell per contract year. The business review will cover sales to Participating Entities, pricing and contract terms, administrative fees, sales data reports, performance issues, supply issues, customer issues, and any other necessary information.

8. REPORT ON CONTRACT SALES ACTIVITY AND ADMINISTRATIVE FEE PAYMENT

A. CONTRACT SALES ACTIVITY REPORT. Each calendar quarter, Supplier must provide a contract sales activity report (Report) to the Sourcewell Supplier Development Administrator assigned to this Contract. Reports are due no later than 45 days after the end of each calendar quarter. A Report must be provided regardless of the number or amount of sales during that quarter (i.e., if there are no sales, Supplier must submit a report indicating no sales were made).

The Report must contain the following fields:

- Participating Entity Name (e.g., City of Staples Highway Department);
- Participating Entity Physical Street Address;
- Participating Entity City;
- Participating Entity State/Province;
- Participating Entity Zip/Postal Code;
- Item Purchased Description;
- Item Purchased Price;
- Sourcewell Administrative Fee Applied; and
- Date Purchase was invoiced/sale was recognized as revenue by Supplier.

B. ADMINISTRATIVE FEE. In consideration for the support and services provided by Sourcewell, the Supplier will pay an administrative fee to Sourcewell on all Equipment, Products, and Services provided to Participating Entities. The Administrative Fee must be included in, and not added to, the pricing. Supplier may not charge Participating Entities more than the contracted price to offset the Administrative Fee. Any state that requires a Sourcewell participating addendum with an additional admin fee, we reserve the right to reduce the list price discount to accommodate this additional fee.

The Supplier will submit payment to Sourcewell for the percentage of administrative fee stated in the Proposal multiplied by the total sales of all Equipment, Products, and Services purchased by Participating Entities under this Contract during each calendar quarter. Payments should note the Supplier's name and Sourcewell-assigned contract number in the memo; and must be mailed to the address above "Attn: Accounts Receivable" or remitted electronically to Sourcewell's banking institution per Sourcewell's Finance department instructions. Payments must be received no later than 45 calendar days after the end of each calendar quarter.

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Supplier agrees to cooperate with Sourcewell in auditing transactions under this Contract to ensure that the administrative fee is paid on all items purchased under this Contract.

In the event the Supplier is delinquent in any undisputed administrative fees, Sourcewell reserves the right to cancel this Contract and reject any proposal submitted by the Supplier in any subsequent solicitation. In the event this Contract is cancelled by either party prior to the Contract's expiration date, the administrative fee payment will be due no more than 30 days from the cancellation date.

9. AUTHORIZED REPRESENTATIVE

Sourcewell's Authorized Representative is its Chief Procurement Officer.

Supplier's Authorized Representative is the person named in the Supplier's Proposal. If Supplier's Authorized Representative changes at any time during this Contract, Supplier must promptly notify Sourcewell in writing.

10. AUDIT, ASSIGNMENT, AMENDMENTS, WAIVER, AND CONTRACT COMPLETE

A. AUDIT. Pursuant to Minnesota Statutes Section 16C.05, subdivision 5, the books, records, documents, and accounting procedures and practices relevant to this Contract are subject to examination by Sourcewell or the Minnesota State Auditor for a minimum of six years from the end of this Contract. This clause extends to Participating Entities as it relates to business conducted by that Participating Entity under this Contract.

B. ASSIGNMENT. Neither party may assign or otherwise transfer its rights or obligations under this Contract without the prior written consent of the other party and a fully executed assignment agreement. Such consent will not be unreasonably withheld. Any prohibited assignment will be invalid.

C. AMENDMENTS. Any amendment to this Contract must be in writing and will not be effective until it has been duly executed by the parties.

D. WAIVER. Failure by either party to take action or assert any right under this Contract will not be deemed a waiver of such right in the event of the continuation or repetition of the circumstances giving rise to such right. Any such waiver must be in writing and signed by the parties.

E. CONTRACT COMPLETE. This Contract represents the complete agreement between the parties. No other understanding regarding this Contract, whether written or oral, may be used to bind either party. For any conflict between the attached Proposal and the terms set out in Articles 1-22 of this Contract, the terms of Articles 1-22 will govern.

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F. RELATIONSHIP OF THE PARTIES. The relationship of the parties is one of independent contractors, each free to exercise judgment and discretion with regard to the conduct of their respective businesses. This Contract does not create a partnership, joint venture, or any other relationship such as master-servant, or principal-agent.

11. INDEMNITY AND HOLD HARMLESS

Supplier must indemnify, defend, save, and hold Sourcewell and its Participating Entities, including their agents and employees, harmless from any claims or causes of action, including attorneys' fees incurred by Sourcewell or its Participating Entities, arising out of any act or omission in the performance of this Contract by the Supplier or its agents or employees; this indemnification includes injury or death to person(s) or property alleged to have been caused by some defect in the Equipment, Products, or Services under this Contract to the extent the Equipment, Product, or Service has been used according to its specifications. Sourcewell's responsibility will be governed by the State of Minnesota's Tort Liability Act (Minnesota Statutes Chapter 466) and other applicable law.

12. GOVERNMENT DATA PRACTICES

Supplier and Sourcewell must comply with the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, as it applies to all data provided by or provided to Sourcewell under this Contract and as it applies to all data created, collected, received, maintained, or disseminated by the Supplier under this Contract.

13. INTELLECTUAL PROPERTY, PUBLICITY, MARKETING, AND ENDORSEMENT

A. INTELLECTUAL PROPERTY

1. *Grant of License.* During the term of this Contract:
   a. Sourcewell grants to Supplier a royalty-free, worldwide, non-exclusive right and license to use the trademark(s) provided to Supplier by Sourcewell in advertising and promotional materials for the purpose of marketing Sourcewell's relationship with Supplier.
   b. Supplier grants to Sourcewell a royalty-free, worldwide, non-exclusive right and license to use Supplier's trademarks in advertising and promotional materials for the purpose of marketing Supplier's relationship with Sourcewell.
2. *Limited Right of Sublicense*. The right and license granted herein includes a limited right of each party to grant sublicenses to their respective subsidiaries, distributors, dealers, resellers, marketing representatives, and agents (collectively "Permitted Sublicensees") in advertising and promotional materials for the purpose of marketing the Parties' relationship to Participating Entities. Any sublicense granted will be subject to the terms and conditions of this Article. Each party will be responsible for any breach of this Article by any of their respective sublicensees.
3. *Use; Quality Control.*

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a. Neither party may alter the other party's trademarks from the form provided and must comply with removal requests as to specific uses of its trademarks or logos.

b. Each party agrees to use, and to cause its Permitted Sublicensees to use, the other party's trademarks only in good faith and in a dignified manner consistent with such party's use of the trademarks. Upon written notice to the breaching party, the breaching party has 30 days of the date of the written notice to cure the breach or the license will be terminated.

4. *Termination*. Upon the termination of this Contract for any reason, each party, including Permitted Sublicensees, will have 30 days to remove all Trademarks from signage, websites, and the like bearing the other party's name or logo (excepting Sourcewell's pre-printed catalog of suppliers which may be used until the next printing). Supplier must return all marketing and promotional materials, including signage, provided by Sourcewell, or dispose of it according to Sourcewell's written directions.

B. PUBLICITY. Any publicity regarding the subject matter of this Contract must not be released without prior written approval from the Authorized Representatives. Publicity includes notices, informational pamphlets, press releases, research, reports, signs, and similar public notices prepared by or for the Supplier individually or jointly with others, with respect to the program, publications, or services provided resulting from this Contract.

C. MARKETING. Any direct advertising, marketing, or offers with Participating Entities must be approved by Sourcewell. Send all approval requests to the Sourcewell Supplier Development Administrator assigned to this Contract.

D. ENDORSEMENT. The Supplier must not claim that Sourcewell endorses its Equipment, Products, or Services.

14. GOVERNING LAW, JURISDICTION, AND VENUE

The substantive and procedural laws of the State of Minnesota will govern this Contract. Venue for all legal proceedings arising out of this Contract, or its breach, must be in the appropriate state court in Todd County, Minnesota or federal court in Fergus Falls, Minnesota.

15. FORCE MAJEURE

Neither party to this Contract will be held responsible for delay or default caused by acts of God or other conditions that are beyond that party's reasonable control. A party defaulting under this provision must provide the other party prompt written notice of the default.

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16. SEVERABILITY

If any provision of this Contract is found by a court of competent jurisdiction to be illegal, unenforceable, or void then both parties will be relieved from all obligations arising from that provision. If the remainder of this Contract is capable of being performed, it will not be affected by such determination or finding and must be fully performed.

17. PERFORMANCE, DEFAULT, AND REMEDIES

A. PERFORMANCE. During the term of this Contract, the parties will monitor performance and address unresolved contract issues as follows:

1. *Notification.* The parties must promptly notify each other of any known dispute and work in good faith to resolve such dispute within a reasonable period of time. If necessary, Sourcewell and the Supplier will jointly develop a short briefing document that describes the issue(s), relevant impact, and positions of both parties.
2. *Escalation.* If parties are unable to resolve the issue in a timely manner, as specified above, either Sourcewell or Supplier may escalate the resolution of the issue to a higher level of management. The Supplier will have 30 calendar days to cure an outstanding issue.
3. *Performance while Dispute is Pending*. Notwithstanding the existence of a dispute, the Supplier must continue without delay to carry out all of its responsibilities under the Contract that are not affected by the dispute. If the Supplier fails to continue without delay to perform its responsibilities under the Contract, in the accomplishment of all undisputed work, the Supplier will bear any additional costs incurred by Sourcewell and/or its Participating Entities as a result of such failure to proceed.

B. DEFAULT AND REMEDIES. Either of the following constitutes cause to declare this Contract, or any Participating Entity order under this Contract, in default:

1. Nonperformance of contractual requirements, or
2. A material breach of any term or condition of this Contract.

The party claiming default must provide written notice of the default, with 30 calendar days to cure the default. Time allowed for cure will not diminish or eliminate any liability for liquidated or other damages. If the default remains after the opportunity for cure, the non-defaulting party may:

- Exercise any remedy provided by law or equity, or
- Terminate the Contract or any portion thereof, including any orders issued against the Contract.

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18. INSURANCE

A. REQUIREMENTS. At its own expense, Supplier must maintain insurance policy(ies) in effect at all times during the performance of this Contract with insurance company(ies) licensed or authorized to do business in the State of Minnesota having an "AM BEST" rating of A- or better, with coverage and limits of insurance not less than the following:

1. *Workers' Compensation and Employer's Liability.*
Workers' Compensation: As required by any applicable law or regulation.
Employer's Liability Insurance: must be provided in amounts not less than listed below:
Minimum limits:
$500,000 each accident for bodily injury by accident
$500,000 policy limit for bodily injury by disease
$500,000 each employee for bodily injury by disease

2. *Commercial General Liability Insurance.* Supplier will maintain insurance covering its operations, with coverage on an occurrence basis, and must be subject to terms no less broad than the Insurance Services Office ("ISO") Commercial General Liability Form CG0001 (2001 or newer edition), or equivalent. At a minimum, coverage must include liability arising from premises, operations, bodily injury and property damage, independent contractors, products-completed operations including construction defect, contractual liability, blanket contractual liability, and personal injury and advertising injury. All required limits, terms and conditions of coverage must be maintained during the term of this Contract.
Minimum Limits:
$1,000,000 each occurrence Bodily Injury and Property Damage
$1,000,000 Personal and Advertising Injury
$2,000,000 aggregate for products liability-completed operations
$2,000,000 general aggregate

3. *Commercial Automobile Liability Insurance.* During the term of this Contract, Supplier will maintain insurance covering all owned, hired, and non-owned automobiles in limits of liability not less than indicated below. The coverage must be subject to terms no less broad than ISO Business Auto Coverage Form CA 0001 (2010 edition or newer), or equivalent.
Minimum Limits:
$1,000,000 each accident, combined single limit

4. *Umbrella Insurance*. During the term of this Contract, Supplier will maintain umbrella coverage over Employer's Liability, Commercial General Liability, and Commercial Automobile.
Minimum Limits:
$2,000,000

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5. *Network Security and Privacy Liability Insurance*. During the term of this Contract, Supplier will maintain coverage for network security and privacy liability. The coverage may be endorsed on another form of liability coverage or written on a standalone policy. The insurance must cover claims which may arise from failure of Supplier's security resulting in, but not limited to, computer attacks, unauthorized access, disclosure of not public data – including but not limited to, confidential or private information, transmission of a computer virus, or denial of service.

Minimum limits:
$2,000,000 per occurrence
$2,000,000 annual aggregate

Failure of Supplier to maintain the required insurance will constitute a material breach entitling Sourcewell to immediately terminate this Contract for default.

B. CERTIFICATES OF INSURANCE. Prior to commencing under this Contract, Supplier must furnish to Sourcewell a certificate of insurance, as evidence of the insurance required under this Contract. Prior to expiration of the policy(ies), renewal certificates must be mailed to Sourcewell, 202 12th Street Northeast, P.O. Box 219, Staples, MN 56479 or sent to the Sourcewell Supplier Development Administrator assigned to this Contract. The certificates must be signed by a person authorized by the insurer(s) to bind coverage on their behalf.

Failure to request certificates of insurance by Sourcewell, or failure of Supplier to provide certificates of insurance, in no way limits or relieves Supplier of its duties and responsibilities in this Contract.

C. ADDITIONAL INSURED ENDORSEMENT AND PRIMARY AND NON-CONTRIBUTORY INSURANCE CLAUSE. Supplier agrees to list Sourcewell and its Participating Entities, including their officers, agents, and employees, as an additional insured under the Supplier's commercial general liability insurance policy with respect to liability arising out of activities, "operations," or "work" performed by or on behalf of Supplier, and products and completed operations of Supplier. The policy provision(s) or endorsement(s) must further provide that coverage is primary and not excess over or contributory with any other valid, applicable, and collectible insurance or self-insurance in force for the additional insureds.

D. WAIVER OF SUBROGATION. Supplier waives and must require (by endorsement or otherwise) all its insurers to waive subrogation rights against Sourcewell and other additional insureds for losses paid under the insurance policies required by this Contract or other insurance applicable to the Supplier. The waiver must apply to all deductibles and/or self-insured retentions applicable to the required or any other insurance maintained by the Supplier.

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E. UMBRELLA/EXCESS LIABILITY/SELF-INSURED RETENTION. The limits required by this Contract can be met by either providing a primary policy or in combination with umbrella/excess liability policy(ies), or self-insured retention.

19. COMPLIANCE

A. LAWS AND REGULATIONS. All Equipment, Products, or Services provided under this Contract must comply fully with applicable federal laws and regulations, and with the laws in the states and provinces in which the Equipment, Products, or Services are sold.

B. LICENSES. Supplier must maintain a valid and current status on all required federal, state/provincial, and local licenses, bonds, and permits required for the operation of the business that the Supplier conducts with Sourcewell and Participating Entities.

20. BANKRUPTCY, DEBARMENT, OR SUSPENSION CERTIFICATION

Supplier certifies and warrants that it is not in bankruptcy or that it has previously disclosed in writing certain information to Sourcewell related to bankruptcy actions. If at any time during this Contract Supplier declares bankruptcy, Supplier must immediately notify Sourcewell in writing.

Supplier certifies and warrants that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from programs operated by the State of Minnesota; the United States federal government or the Canadian government, as applicable; or any Participating Entity. Supplier certifies and warrants that neither it nor its principals have been convicted of a criminal offense related to the subject matter of this Contract. Supplier further warrants that it will provide immediate written notice to Sourcewell if this certification changes at any time.

21. PROVISIONS FOR NON-UNITED STATES FEDERAL ENTITY PROCUREMENTS UNDER UNITED STATES FEDERAL AWARDS OR OTHER AWARDS

Intentionally Omitted.

22. CANCELLATION

Sourcewell or Supplier may cancel this Contract at any time, with or without cause, upon 60 days' written notice to the other party. However, Sourcewell may cancel this Contract immediately upon discovery of a material defect in any certification made in Supplier's Proposal. Cancellation of this Contract does not relieve either party of financial, product, or service obligations incurred or accrued prior to cancellation.

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Sourcewell

DocuSigned by:
By: Jeremy Schwartz
C0FD2A139D06489...

Jeremy Schwartz
Title: Chief Procurement Officer
Date: 4/4/2023 | 2:30 PM CDT

John Deere Construction Retail Sales a division of John Deere Shared Services LLC, DBA John Deere Construction Retail Sales

DocuSigned by:
By: Mark Oliver
1CAF73242BB647F...

Mark Oliver
Title: Manager Contract Sales
Date: 4/5/2023 | 8:05 AM CDT

Approved:

DocuSigned by:
By: Chad Coauette
7E42B8F817A64CC...

Chad Coauette
Title: Executive Director/CEO
Date: 4/5/2023 | 8:20 AM CDT

DocuSign Envelope ID: 54FC24D3-8A5A-4541-98A2-44B284ACDC8E

RFP 011723 - Heavy Construction Equipment with Related Attachments and Technology

Vendor Details

Company Name:	John Deere Shared Services LLC
Does your company conduct business under any other name? If yes, please state:	John Deere Construction Retail Sales a division of John Deere Shared Services LLC
Address:	1300 River Drive Moline, IL 61265
Contact:	Brooke DeVol
Email:	ForsbergBrookeL@JohnDeere.com
Phone:	309-207-0431
HST#:	36-2382580

Submission Details

Created On:	Monday November 28, 2022 09:24:58
Submitted On:	Thursday January 12, 2023 14:48:05
Submitted By:	Brooke DeVol
Email:	ForsbergBrookeL@JohnDeere.com
Transaction #:	17731346-34ec-484a-83d5-3fc1c1f49270
Submitter's IP Address:	165.225.57.43

ATTACHMENT 1

Specifications

Table 1: Proposer Identity & Authorized Representatives

General Instructions (applies to all Tables) Sourcewell prefers a brief but thorough response to each question. Do not merely attach additional documents to your response without also providing a substantive response. Do not leave answers blank; respond "N/A" if the question does not apply to you (preferably with an explanation).

Line Item	Question	Response *	
1	Proposer Legal Name (one legal entity only): (In the event of award, will execute the resulting contract as "Supplier")	John Deere Construction Retail Sales a division of John Deere Shared Services LLC	*
2	Identify all subsidiary entities of the Proposer whose equipment, products, or services are included in the Proposal.	Not Applicable	*
3	Identify all applicable assumed names or DBA names of the Proposer or Proposer's subsidiaries in Line 1 or Line 2 above.	John Deere Construction Retail Sales JDCRS John Deere Construction & Forestry	*
4	Provide your CAGE code or Unique Entity Identifier (SAM):	Cage Code: 3PSD7 UEI: ED9BLXH3Hg21	*
5	Proposer Physical Address:	1300 River Drive Moline, IL 61265	*
6	Proposer website address (or addresses):	www.deere.com	*
7	Proposer's Authorized Representative (name, title, address, email address & phone) (The representative must have authority to sign the "Proposer's Assurance of Compliance" on behalf of the Proposer and, in the event of award, will be expected to execute the resulting contract):	Mark Oliver, Manager Contract Sales 1300 River Drive Moline, IL 61265 OliverMarkR@JohnDeere.com 309-748-3418	*
8	Proposer's primary contact for this proposal (name, title, address, email address & phone):	Brooke DeVol, Contract Administrator 1300 River Drive Moline, IL 61265 ForsbergBrookeL@JohnDeere.com 309-207-0431	*
9	Proposer's other contacts for this proposal, if any (name, title, address, email address & phone):	Mark Oliver, Manager Contract Sales 1300 River Drive Moline, IL 61265 OliverMarkR@JohnDeere.com 309-748-3418	

Table 2: Company Information and Financial Strength

Line Item	Question	Response *	
10	Provide a brief history of your company, including your company's core values, business philosophy, and industry longevity related to the requested equipment, products or services.	We Run Like No Other. We conduct business essential to life. Running for the people who trust us and the planet that sustains us, we create intelligent connected machines that enable lives to leap forward. See our higher purpose: https://www.deere.com/en/our-company/higher-purpose/ John Deere customers are at the center of everything we do. We rely on more than 180 years of experience and terabytes of precision data to know them and their businesses better than anyone else. Our easy-to-use technology helps deliver results they see in the field, on the job site, and on the balance sheet. We ensure seamless access to parts, services, and performance upgrades from take home to trade-in by providing world-class support throughout the lifecycle of their equipment, with productivity and sustainability always in mind. We never forget that we're here to help life leap forward. Deere & Company at a glance: https://www.deere.com/assets/pdfs/common/our-company/deere-&-company-at-a-glance.pdf	*

11	What are your company's expectations in the event of an award?	Our expectation, if we are awarded, is to continue working with Sourcewell to provide governmental customers the best option for acquiring our Construction and Compact Construction products. The John Deere Governmental Sales Team will continue to train our dealers on how to present Sourcewell and the benefits the contract offers to continue growing our sales. Since our training plan was rolled out in late 2016, our sales on this contract have had significant growth and our expectation is to continue that trend in the market place.	*
12	Demonstrate your financial strength and stability with meaningful data. This could include such items as financial statements, SEC filings, credit and bond ratings, letters of credit, and detailed reference letters. Upload supporting documents (as applicable) in the document upload section of your response.	John Deere has a long history and attached in supplemental documents is our most recent annual report from 2021. Our 2022 fiscal year just concluded on October 31, 2022 and the annual report is not published at this time.	*
13	What is your US market share for the solutions that you are proposing?	While we do not publicly state market share position, John Deere Construction & Forestry holds a top level market share position across our entire product portfolio in the US.	*
14	What is your Canadian market share for the solutions that you are proposing?	While we do not publicly state market share position, John Deere Construction & Forestry holds a top level market share position across our entire product portfolio in Canada.	*
15	Has your business ever petitioned for bankruptcy protection? If so, explain in detail.	No bankruptcy proceedings have taken place.	*
16	How is your organization best described: is it a manufacturer, a distributor/dealer/reseller, or a service provider? Answer whichever question (either a) or b) just below) best applies to your organization. a) If your company is best described as a distributor/dealer/reseller (or similar entity), provide your written authorization to act as a distributor/dealer/reseller for the manufacturer of the products proposed in this RFP. If applicable, is your dealer network independent or company owned? b) If your company is best described as a manufacturer or service provider, describe your relationship with your sales and service force and with your dealer network in delivering the products and services proposed in this RFP. Are these individuals your employees, or the employees of a third party?	John Deere Construction Retail Sales (JDCRS) is based in Moline, IL and is responsible for growing sales in the governmental segment for the Construction & Forestry Division of John Deere. All employees of JDCRS are full time John Deere employees. This sales team is responsible for training our dealers on governmental business, contracts and sales processes. Specific to supporting the Sourcewell contract, the account managers, contract manager and sales support team are responsible for educating the dealers on the quoting, ordering and delivery process of products sold on the Sourcewell contract. All dealers are required to go through a contract training program either in person or virtually via Microsoft Teams to become an authorized seller on our contract. This process has been the main driver of our growth since it was launched in 2016. We do retain the right to sell direct if required or the dealer has not completed our training program. Upon award of this new contract, we are revamping our training process to leverage our John Deere University online training system to make it easier and more efficient for the dealer field staff to become trained and certified on the Sourcewell contract.	*
17	If applicable, provide a detailed explanation outlining the licenses and certifications that are both required to be held, and actually held, by your organization (including third parties and subcontractors that you use) in pursuit of the business contemplated by this RFP.	John Deere maintains all licenses and certifications necessary to conduct its business around the world. This is supported by our Supply Management, Engineering, Safety, Accounting, Human Resources and Tax and Legal Departments. John Deere self-audits and has regular outside audits performed by Deloitte & Touche for compliance with all required licenses, certifications and regulations.	*
18	Provide all "Suspension or Debarment" information that has applied to your organization during the past ten years.	There are no suspensions or disbarments to note.	*

ATTACHMENT 1

Table 3: Industry Recognition & Marketplace Success

Line Item	Question	Response *	
19	Describe any relevant industry awards or recognition that your company has received in the past five years	John Deere has received numerous levels of recognition and awards worldwide for quality production standards, environmental responsibility, ethics, diversity, safety and corporate citizenship. Page 12 of the 2021 Annual Report (attached in the documents section of the response) showcases some of our business highlights and the list of 2021 Awards and Recognitions. Also, attached within the documents section is our 2021 Sustainability Report for John Deere.	*
20	What percentage of your sales are to the governmental sector in the past three years	Customer and segment specifics for John Deere sales are not shared publicly. For the industry as a whole that we participate in, approximately 10-15% of sales for Construction and Compact Construction Equipment are sold to governmental agencies across North American each year.	*
21	What percentage of your sales are to the education sector in the past three years	Our education sector sales is a low percentage of our total governmental business but education entities have utilized the Sourcewell contract previously. For construction and compact construction equipment it is generally reported as a local or state level sale.	*
22	List any state, provincial, or cooperative purchasing contracts that you hold. What is the annual sales volume for each of these contracts over the past three years?	NASPO, as well as state participating addendums through this contract H-GAC TASB BuyBoard We also hold on average 5-10 individual state contracts outside of cooperative purchasing contracts. Sales figures are not publicly shared on any of these contracts.	*
23	List any GSA contracts or Standing Offers and Supply Arrangements (SOSA) that you hold. What is the annual sales volume for each of these contracts over the past three years?	GSA DLA US Fish & Wildlife, IDIQ Sales figures are not publicly shared on any of these contracts.	*

Table 4: References/Testimonials

Line Item 24. Supply reference information from three customers who are eligible to be Sourcewell participating entities.

Entity Name *	Contact Name *	Phone Number *	
Murphy Tractor & Equipment; an authorized dealer with a vast customer base with Sourcewell purchases.	Cole Iverson VP of Sales	507-320-8826	*
Brandt Tractor Ltd.; an authorized dealer with a vast customer baes with Sourcewell purchases.	Lloyd Norminton Government Sales Manager	780-486-6786	*
RDO Construction Equipment MW; an authorized dealer with a vast customer base with Sourcewell purchases.	Jesse Miller Government Sales Manager	952-882-2752	*

ATTACHMENT 1

Table 5: Top Five Government or Education Customers

Line Item 25. Provide a list of your top five government, education, or non-profit customers (entity name is optional), including entity type, the state or province the entity is located in, scope of the project(s), size of transaction(s), and dollar volumes from the past three years.

Entity Name	Entity Type *	State / Province *	Scope of Work *	Size of Transactions *	Dollar Volume Past Three Years *	
New York State	Government	New York - NY	Sourcewell and Sourcewell participating addendum sales.	We averaged 172 sales per year over the last 3 years within the state of New York.	We averaged 19 million dollars per year over the last 3 years within the state of New York.	*
State of Ohio	Government	Ohio - OH	Sourcewell sales. Ohio STS contract was also held and is now expired. These sales are not publicly shared from our office. 2022 Q4 is our first full quarter of our Sourcewell PA contract being rolled out in Ohio.	Previous contracts in Ohio averaged 38-50 transactions per year.	Previous contracts in Ohio averaged 3-5 million dollars per year.	*
United States Air Force	Government	Pennsylvania - PA	DLA Military Sales	Not publicly shared from our office.	Not publicly shared from our office.	*
Florida Forest Service	Government	Florida - FL	Florida Forest Service contract	Not publicly shared from our office.	Not publicly shared from our office.	*
Louisiana DOT	Government	Louisiana - LA	State DOT contract	Not publicly shared from our office.	Not publicly shared from our office.	*

Table 6: Ability to Sell and Deliver Service

Describe your company's capability to meet the needs of Sourcewell participating entities across the US and Canada, as applicable. Your response should address in detail at least the following areas: locations of your network of sales and service providers, the number of workers (full-time equivalents) involved in each sector, whether these workers are your direct employees (or employees of a third party), and any overlap between the sales and service functions.

Line Item	Question	Response *	
26	Sales force.	Sales is covered by our independent dealer network that has been trained and certified on the Sourcewell sales processes. We have dealer standards that require a minimum sales person to customer ratio to ensure proper sales coverage and response time.	*
27	Dealer network or other distribution methods.	There are nearly 400 dealer locations in the U.S., authorized to sell John Deere construction equipment products and another 60 covering Canada. There are roughly 1400 dealer locations in the U.S. authorized to sell compact construction equipment another 500 across Canada. These John Deere dealers sign contracts to sell and service John Deere products in their assigned areas. We have dealer standards that require a minimum sales person to customer ratio to ensure proper sales coverage and response time.	*
28	Service force.	This is covered fully by our dealers. Our dealers standard policy also has a minimum service technician to machine base ratio to ensure the best service and response time.	*
29	Describe the ordering process. If orders will be handled by distributors, dealers or others, explain the respective roles of the Proposer and others.	We have two processes for ordering products on our Sourcewell contract. The majority of our sales are ordered by authorized selling dealers that have been trained and certified by our John Deere Government Sales office. Upon delivery of an order we have a sales reporting automated process to capture the sales for reporting to Sourcewell. For dealers that may not be certified yet, our John Deere Government Sales office reserves the right to order direct.	*

30	Describe in detail the process and procedure of your customer service program, if applicable. Include your response-time capabilities and commitments, as well as any incentives that help your providers meet your stated service goals or promises.	A professional, capable, well-trained, well-capitalized dealer network is one of John Deere's competitive advantages. Our dealers, backed by John Deere, provide local customer support, repairs, maintenance and parts. John Deere has authorized dealers in all 50 U.S. states and all across Canada. There are nearly 400 dealer locations in the U.S., authorized to sell John Deere construction equipment products and another 60 covering Canada. There are roughly 1400 dealer locations in the U.S. authorized to sell compact construction equipment and another 500 across Canada. These John Deere dealers sign contracts to sell and service John Deere products in their assigned areas. We also have a certified technician training program to ensure quality service for our customers. There are also multiple regional parts depots across North America for the best parts availability in the industry. Dealers must submit an annual business plan that contains their commitment to effectively selling and supporting all potential customer in their area, including but not limited to commercial accounts, national accounts, and state, county, and local governmental agencies. Customer can count on John Deere construction dealers to support our products and customers.	*
31	Describe your ability and willingness to provide your products and services to Sourcewell participating entities in the United States.	All areas of the U.S. will be served.	*
32	Describe your ability and willingness to provide your products and services to Sourcewell participating entities in Canada.	All areas of Canada that Sourcewell has a defined partner (such as Canoe) will also be served.	*
33	Identify any geographic areas of the United States or Canada that you will NOT be fully serving through the proposed contract.	All areas of the U.S. will be served. All areas of Canada that Sourcewell has a defined partner (such as Canoe) will also be served.	*
34	Identify any Sourcewell participating entity sectors (i.e., government, education, not-for-profit) that you will NOT be fully serving through the proposed contract. Explain in detail. For example, does your company have only a regional presence, or do other cooperative purchasing contracts limit your ability to promote another contract?	Any agency that John Deere defines as a governmental customer and is also eligible to be a Sourcewell member will qualify for the discounts on our contract. John Deere Construction & Forestry defines a governmental customer as the following: 1. Federal, state/provincial, county, municipal and local governmental agencies 2. Hospitals and state/provincially accredited schools (both public and private) 3. Special government and/or taxing districts that have authority to levy taxes and/or issue tax free municipal bonds (ex. airports) 4. Governmental facilities run by independent management groups qualify only if a governmental agency issues the purchase order and retains ownership. Ownership by the management group voids discount eligibility. 5. Non-governmental utilities or departments or divisions of them that provide has, water, electrical, or telephone service directly to commercial or home users 6. Governmental agencies or departments or divisions of them that provide recycling or waste service directly to commercial or home users. Companies or departments or divisions of these utilities that do not provide service directly to commercial or home users do not qualify 7. North American Indian Tribal Councils 8. Non-profit agencies exempt from state/provincial and federal taxes 9. All Municipal Railroads	*
35	Define any specific contract requirements or restrictions that would apply to our participating entities in Hawaii and Alaska and in US Territories.	The John Deere Construction & Forestry Division has assigned dealers in both Alaska and Hawaii. As is the case for the continental U.S. (CONUS), factory to dealer freight as well as local delivery by dealer to end-user will be quoted and invoiced for any applicable areas outside of the continental U.S. (CONUS). Location specific factors related to moves by ocean, barge, inland, etc. will affect final delivery date.	*

Table 7: Marketing Plan

Line Item	Question	Response *	
36	Describe your marketing strategy for promoting this contract opportunity. Upload representative samples of your marketing materials (if applicable) in the document upload section of your response.	Since our "authorized selling dealer" initiative that was rolled out in late 2016, our marketing plan has focused on getting our dealer network to understand the power of cooperative purchasing, specially the Sourcewell contract. Our dealers are closer to the end use customers and understand their business and product needs better than our small team here in Moline, IL. Once we got the dealers fully bought in on the power, ease of use and importance of the contract, the sales numbers took off year over year. Our plan for the new contract is to continue this with our dealer network.	*
37	Describe your use of technology and digital data (e.g., social media, metadata usage) to enhance marketing effectiveness.	John Deere has a great public website with information about our entire product line. We also have a link to a variety of governmental contracts that are available. In addition to those site, we also allow the customer to build their own machine online so they can see the options that are available before they contact their local dealer. https://www.deere.com/en/ https://www.deere.com/en/construction/ https://www.deere.com/en/government-and-military-sales/ https://www.deere.com/en/government-and-military-sales/state-and-local-purchasing/ https://configure.deere.com/cbyo/#/en_us/products Our marketing communications group runs a variety of social media promotions including a YouTube channel (https://www.youtube.com/user/JohnDeere) and Facebook page (https://www.facebook.com/JohnDeereUSCA/). The message on these sites changes periodically but it is primarily focused on the benefits of the John Deere relationship and how we are close to our customer.	*
38	In your view, what is Sourcewell's role in promoting contracts arising out of this RFP? How will you integrate a Sourcewell-awarded contract into your sales process?	From the John Deere perspective, there are three key components to promoting the Sourcewell contract: Sourcewell, John Deere Construction Retail Sales (JDCRS), and our dealer network across the US and Canada. Each has a key role to the success of the continued and incremental sales increases each year. Sourcewell's job is to continue to promote the brand to eligible members so they understand the basics of cooperative purchasing and the benefits of membership. JDCRS has the responsibility to train the dealers on sales processes (ceiling price, discount structure, ordering and delivering of products), how to determine if a customer is already a member and how to assist a customer that is not a member how to become a member. Our dealer's responsibility is to help identify the right product for the job and how to find the easiest, most cost effective way to source that product/solution. We believe that Sourcewell provides one of the best tools available to eligible customer and we will continue to promote that in our annual training. We work with our dealers and support them at any regional conference or training opportunity that helps promote the brand of all three entities. Open communication between all three parties is the key for future success and incremental sales gains on the next contract.	*
39	Are your products or services available through an e-procurement ordering process? If so, describe your e-procurement system and how governmental and educational customers have used it.	We are investigating e-procurement options for certain product families in the future but those are not available at this time. Due to the customizable nature of products and services, there are many possible configurations for each model. Many build-code dependencies must be taken into consideration for a properly functioning machine to be built. For that reason, we feel it is best to contact the local dealer for machine configuration guidance prior to requesting a contract quote.	*

Table 8: Value-Added Attributes

Line Item	Question	Response *	
40	Describe any product, equipment, maintenance, or operator training programs that you offer to Sourcewell participating entities. Include details, such as whether training is standard or optional, who provides training, and any costs that apply.	Training on equipment operation and safety is provided through the local dealer. At time of delivery, the dealer provides an introductory walk-around of the unit, explaining general operation and maintenance procedures, free of charge as part of the purchase. Additional product or specific system training is optional and quoted by the local dealer.	*

41	Describe any technological advances that your proposed products or services offer.	John Deere C&F products offer a variety of technology solutions that work to eliminate rework, improve jobsite safety, counteract labor shortages and increase efficiency. Information on those initiatives is public and can be found at the following link: https://www.deere.com/en/technology-products/precision-construction-technology/ There was also a magazine published in the Fall of 2021 that focused on technology and its place in our industry. A link to that publication is below. THE DIRT publication, Fall 2021. https://www.deere.com/assets/pdfs/common/industries/construction/publications/the-dirt-fall-2021-dkmag265c-cv.pdf John Deere has also published what is known as our "Leap Ambitions" and that is also public. Our strategy for the Construction & Forestry Division is by 2026, we will deliver: • 20+ electric and hybrid-electric product models. • Earthmoving: Increase SmartGradeTM grade control adoption to 50%. • Forestry: Boost Intelligent Boom Control adoption to 100%. • Roadbuilding: Increase Precision Roadbuilding Solution adoption to 85%. More information on our Leap Ambitions can be found at: https://www.deere.com/en/our-company/sustainability/sustainability-report/leap-ambitions/ Technology advances in our products is vitally important and was on display at CES 2023 where our CEO was the keynote speaker on day 1. Information can be found at CES2023.deere.com	*
42	Describe any "green" initiatives that relate to your company or to your products or services, and include a list of the certifying agency for each.	John Deere has been very public with these initiatives and more can be found on our website in our most recently published Sustainability Report. https://www.deere.com/en/our-company/sustainability/sustainability-report/ "Our next leap is ELECTRIC" is another informative piece discussing the future of electrification at John Deere. https://www.deere.com/en/our-company/electrification/	*
43	Identify any third-party issued eco-labels, ratings or certifications that your company has received for the equipment or products included in your Proposal related to energy efficiency or conservation, life-cycle design (cradle-to-cradle), or other green/sustainability factors.	In October 2022, John Deere received an award for the SBTi Validation of Greenhouse Gas Emission Reduction. https://www.deere.com/en/news/all-news/john-deere-receives-sbti-validation-of-greenhouse-gas-emission-reduction-targets/ In 2021 John Deere acquired majority ownership of Kreisel Electric. https://www.kreiselelectric.com/johndeere/	*
44	Describe any Women or Minority Business Entity (WMBE), Small Business Entity (SBE), or veteran owned business certifications that your company or hub partners have obtained. Upload documentation of certification (as applicable) in the document upload section of your response.	John Deere is committed to Supplier Diversity. Each year we submit to GSA a commercial plan that outlines our commitment to use WMBE's, SBE's, and other MBE's suppliers in support of our business. We also have signed on with two small business partners to learn about small business and partner with them to meet demand for products with a small business designation in the Federal market as well as help grow their businesses. Our partners are The Akana Group (Native American owned small business, small business, HUBZone certified) and Bravo (Service Disabled Veteran-Owned Business). If opportunities arise in the cooperative world for small business designation, we are prepared to grow that segment as well.	*
45	What unique attributes does your company, your products, or your services offer to Sourcewell participating entities? What makes your proposed solutions unique in your industry as it applies to Sourcewell participating entities?	John Deere has a very strong presence as a construction equipment and compact construction equipment provider. John Deere is also the world's leading manufacturer of agricultural equipment. Additionally, John Deere Financial is one of the largest equipment finance companies. Valuable Extras: 1) Genuine John Deere Parts - highest quality parts for the highest quality equipment. -Regional parts depots strategically placed around North America for the best parts delivery response. 2) John Deere Connected Support – Allows customers to: - Monitor alerts for the machine remotely. - Monitor engine hours and utilization. - View machine location and get driving directions to the jobsite. - Monitor fuel level and idle time. 3) John Deere Connected Support – Allows dealers to: - Monitor alerts coming from the customers machine. - Remotely connect to a customers machine for real-time diagnostics. - Leverage Expert Alerts from John Deere to address potential future downtime. - Perform software updates from the dealership.	*

Table 9: Warranty

ATTACHMENT 1

Describe in detail your manufacturer warranty program, including conditions and requirements to qualify, claims procedure, and overall structure. You may upload representative samples of your warranty materials (if applicable) in the document upload section of your response in addition to responding to the questions below.

Line Item	Question	Response *	
46	Do your warranties cover all products, parts, and labor?	Construction equipment has basic warranty of 12 months/unlimited hours. The standard warranty general provisions including parts and labor is attached to this RFP submission. Compact construction equipment has a basic warranty of 24 months or 2,000hrs whichever occurs first.	*
47	Do your warranties impose usage restrictions or other limitations that adversely affect coverage?	Extended warranty is available as a separate purchase, not on this RFP, through our local dealers. Extended warranty has a year and hour limitation with each purchase. An example is 3 year 5,000hr power train/hydraulics extended warranty option.	*
48	Do your warranties cover the expense of technicians' travel time and mileage to perform warranty repairs?	No, TTM is not covered within our warranty.	*
49	Are there any geographic regions of the United States or Canada (as applicable) for which you cannot provide a certified technician to perform warranty repairs? How will Sourcewell participating entities in these regions be provided service for warranty repair?	No, we can cover the entire U.S. and Canada with our dealer network.	*
50	Will you cover warranty service for items made by other manufacturers that are part of your proposal, or are these warranties issues typically passed on to the original equipment manufacturer?	Third party warranties are handled by the original OEM of that attachment.	*
51	What are your proposed exchange and return programs and policies?	As noted in the standard warranty document, "John Deere will repair or replace, at its option, any parts… of a new John Deere product that, as delivered to the original retail purchaser(s), are defective in material or workmanship." See attached standard warranty document for full text explanation.	*
52	Describe any service contract options for the items included in your proposal.	John Deere does not offer any service contracts within this RFP. Service contracts and extended warranty options are available for customers from their local dealer and can be quoted to them at time of purchase.	*

Table 10: Payment Terms and Financing Options

ATTACHMENT 1

Line Item	Question	Response *	
53	Describe your payment terms and accepted payment methods.	JDCRS' only option for payment terms is Net 30 Days for direct sales. Since the majority of our deals are purchased through one of our authorized dealers, there are financing options available (JD Financial) that can be negotiated before finalizing the deal.	*
54	Describe any leasing or financing options available for use by educational or governmental entities.	JDCRS (contract vendor) does not play a role in leasing, financing or payment terms other than Net 30 Days. John Deere Financial offers leasing/financing options. The John Deere Municipal Lease Purchase Plan is a special low-rate financing plan that is designed to provide flexibility of leasing while building equity toward ownership of the John Deere equipment. Any state or local government body, or their political subdivisions, having the power to tax may be eligible for the John Deere Municipal Lease Purchase Plan, subject to approval. John Deere Financial also offers other leasing and financing options for governmental, educational and non-profit entities, subject to approval. All leasing and financing options are handled through the local dealer and John Deere Financial. The lease/finance provider funds the contract sales invoice within 30 days.	*
55	Describe any standard transaction documents that you propose to use in connection with an awarded contract (order forms, terms and conditions, service level agreements, etc.). Upload a sample of each (as applicable) in the document upload section of your response.	Our John Deere dealers use approved applications in their business system to provide quotes to customers stating the approved contract discount rate. The quote contains terms and conditions for the quote and terms for payment when a PO is issued. For direct sales through our office similar documentation is used and is available in the document upload section.	*
56	Do you accept the P-card procurement and payment process? If so, is there any additional cost to Sourcewell participating entities for using this process?	P-card payments are accepted with a 3% processing fee added to the contract quote. P-card usage is to be made known at time of quote request. Customer PO must cover the added fee.	*

Table 11: Pricing and Delivery

ATTACHMENT 1

Provide detailed pricing information in the questions that follow below. Keep in mind that reasonable price and product adjustments can be made during the term of an awarded Contract as described in the RFP, the template Contract, and the Sourcewell Price and Product Change Request Form.

Line Item	Question	Response *	
57	Describe your pricing model (e.g., line-item discounts or product-category discounts). Provide detailed pricing data (including standard or list pricing and the Sourcewell discounted price) on all of the items that you want Sourcewell to consider as part of your RFP response. If applicable, provide a SKU for each item in your proposal. Upload your pricing materials (if applicable) in the document upload section of your response.	Each model will have a discount associated to it which applies to all options of that model fully configured, base coded attachments will have a separate discount schedule. Third party attachments (AT and BYT kits) are not part of this RFP proposal and are available for separate purchase by our dealer. The model and discount schedule is attached. Full current price pages will be submitted upon successful award. Any price changes or model updates will be submitted through the PnP process.	*
58	Quantify the pricing discount represented by the pricing proposal in this response. For example, if the pricing in your response represents a percentage discount from MSRP or list, state the percentage or percentage range.	Quotes are provided to the customer with a discount off of current list price. Quotes are price protected for a period of 30 days as long as a PO is received within that 30 day period. See attached pricing & discount schedule as well as the example quote for our proposal on this RFP.	*
59	Describe any quantity or volume discounts or rebate programs that you offer.	We offer two different volume discounts between our construction equipment (CE) portfolio and our compact construction equipment (CCE) portfolio due to the difference in acquisition costs of the larger construction equipment verses the smaller compact construction equipment. CE: 5-7 machines = 1%, 8-14 machines = 2%, 15+ machines = 3% CCE: 8-14 machines = 1%, 15+ machines = 3%	*
60	Propose a method of facilitating “sourced” products or related services, which may be referred to as “open market” items or “nonstandard options”. For example, you may supply such items “at cost” or “at cost plus a percentage,” or you may supply a quote for each such request.	Sourced or open market items are not part of our RFP response but we do allow dealers to quote these as dealer provided items as a separate line item on the quote. Discounts will not be applied to these open market items. Quotes for these products are negotiated directly through the customer and our dealer network.	*
61	Identify any element of the total cost of acquisition that is NOT included in the pricing submitted with your response. This includes all additional charges associated with a purchase that are not directly identified as freight or shipping charges. For example, list costs for items like pre-delivery inspection, installation, set up, mandatory training, or initial inspection. Identify any parties that impose such costs and their relationship to the Proposer.	The following will not be included: 1. Dealer provided goods and services: Non-factory goods and services (third party items) will be quoted by dealer at the customers request. 2. Set-up and installation fees: These charges will be quoted by the dealer and are not part of this RFP. 3. Pre-Delivery Inspection (PDI): A PDI is performed on all new machine purchases to ensure proper fluid levels, check system pressures, verify accurate system operation, and cleaning of the unit prior to delivery. The cost of the PDI is quoted by the dealer and will vary by machine model and complexity. Taxes: Local taxes, if applicable, will be assessed.	*
62	If freight, delivery, or shipping is an additional cost to the Sourcewell participating entity, describe in detail the complete freight, shipping, and delivery program.	Freight, delivery and shipping are charged to the customer and added to the quote as separate line items.	*
63	Specifically describe freight, shipping, and delivery terms or programs available for Alaska, Hawaii, Canada, or any offshore delivery.	Freight, delivery and shipping are charged to the customer and added to the quote as separate line items just as they are for all participating entities. Travel that occurs by ocean, barge or inland may affect the delivery time of the machine.	*
64	Describe any unique distribution and/or delivery methods or options offered in your proposal.	If a customer has a unique request, we can review at that time, otherwise there are no unique methods offered in this RFP.	*

ATTACHMENT 1

Table 12: Pricing Offered

Line Item	The Pricing Offered in this Proposal is: *	Comments
65	c. better than the Proposer typically offers to GPOs, cooperative procurement organizations, or state purchasing departments.	Sourcewell has become our most valued contract to our dealer network for governmental business. We will continue to use our best available discount schedule to support this contract.

Table 13: Audit and Administrative Fee

Line Item	Question	Response *	
66	Specifically describe any self-audit process or program that you plan to employ to verify compliance with your proposed Contract with Sourcewell. This process includes ensuring that Sourcewell participating entities obtain the proper pricing, that the Vendor reports all sales under the Contract each quarter, and that the Vendor remits the proper administrative fee to Sourcewell. Provide sufficient detail to support your ability to report quarterly sales to Sourcewell as described in the Contract template.	Our dealers are required to participate in a contract sales training class to ensure they are promoting the contract per the Terms and Conditions of our RFP response. Dealers are made aware of how to obtain the effective price date of the contract, so the customer is being quoted accurately. Whenever there is a price change approved by Sourcewell, we communicate that information via our dealer bulletin process and post on our dealer microsite. We also use an automated settlement process where a dealer utilizes a program ID code so that we can accurately capture the sales each quarter for our internal review and submit to Sourcewell for the payment of our admin fee. We will also be launching a new quoting process to simplify the quoting process for many of our dealers to ensure accurate pricing per the terms and conditions of our contract.	*
67	If you are awarded a contract, provide a few examples of internal metrics that will be tracked to measure whether you are having success with the contract.	Upon award of this contract, we track the sales performance of each dealer group across the US and Canada to achieve our market share goals for construction equipment and compact construction equipment in the governmental segments. This has worked well for this contract to date, and we will continue to use this market share metric to keep our dealers accountable for performance.	*
68	Identify a proposed administrative fee that you will pay to Sourcewell for facilitating, managing, and promoting the Sourcewell Contract in the event that you are awarded a Contract. This fee is typically calculated as a percentage of Vendor's sales under the Contract or as a per-unit fee; it is not a line-item addition to the Member's cost of goods. (See the RFP and template Contract for additional details.)	We have had great success growing and expanding the utilization of this contract for all our dealers in the US and Canada and will continue this growth by providing a 0.5% admin fee to Sourcewell on all contract items. Third party attachments or non-contract items (dealer provided items) are not subject to the admin fee. The total calculated admin fee is payable each calendar quarter to Sourcewell.	*

Table 14A: Depth and Breadth of Offered Equipment Products and Services

Line Item	Question	Response *	
69	Provide a detailed description of the equipment, products, and services that you are offering in your proposal.	We will be offering our complete line of construction equipment and compact construction equipment, as well as base coded attachments. Product families include Articulated Dump Trucks, Backhoes, Compact Track Loaders, Crawler Dozers, Crawler Loaders, Excavators, Compact Excavators, Tractor Loaders, Motor Graders, Skid Steer Loaders, Wheel Loaders and Compact Wheel Loaders. All services including product support, part support, and warranty work will be provided by our authorized dealers and not part of this contract.	*
70	Within this RFP category there may be subcategories of solutions. List subcategory titles that best describe your products and services.	N/A	*

ATTACHMENT 1

Table 148: Depth and 8readth of Offered Equipment Products and Services

Indicate below if the listed types or classes of equipment, products, and services are offered within your proposal. Provide additional comments in the text box provided, as necessary.

Line Item	Categor\ or T\pe	Offered	Comments
71	Wheeled, tracked, and backhoe loaders	(•) Yes ( ) No	
72	Motor Graders	(•) Yes ( ) No	
73	Wheeled and tracked excavators	(•) Yes ( ) No	
74	Bulldozers, compactors, scapers, articulated and rigid haulers	(•) Yes ( ) No	We do not offer rigid haulers. Compactors are offered on the separate Wirtgen contract.
75	Cranes	( ) Yes (•) No	
76	Accessories or attachments for the offering in #71-75 above	(•) Yes ( ) No	We will be offering base coded attachments at time of whole goods purchase or separately if needed. AT kits and BYT kits (third party attachments) are not part of this contract.
77	Technology or services for the offering in #71-75 above	(•) Yes ( ) No	-' /ink Telematics, Grade Control, and Slope Control are examples of these technology services that are available as options on certain products.

Table 14C: Required Offering of Equipment

Indicate below if the proposer's proposal includes at least one (1) of the following listed types or classes of equipment. Provide additional comments in the text box provided, as necessary.

Line Item	Categor\ or T\pe	Offered	Comments
78	Wheel loader with published net horsepower (HP) of at least 300 HP	(•) Yes ( ) No	We offer 4 wheel loaders that meet this spec requirement.
79	Wheeled or tracked excavator with a published net horsepower (HP) of at least 150 HP	(•) Yes ( ) No	We offer 10 excavators that meet this spec requirement.
80	Motor Grader with a published maximum operating weight of at least 30,000 lbs.	(•) Yes ( ) No	We offer 8 motor graders that meet this spec requirement.
81	Rough terrain, all terrain, crawler, floating, lattice, or telescopic crane with a published maximum lifting capacity of at least 300 tons and a published maximum boom length of at least 150 feet	( ) Yes (•) No	

Exceptions to Terms, Conditions, or Specifications Form

Only those Proposer Exceptions to Terms, Conditions, or Specifications that have been accepted by Sourcewell have been incorporated into the contract text.

ATTACHMENT 1

Documents

Ensure your submission document(s) conforms to the following:

1. Documents in PDF format are preferred. Documents in Word, Excel, or compatible formats may also be provided.

2. Documents should NOT have a security password, as Sourcewell may not be able to open the file. It is your sole responsibility to ensure that the uploaded document(s) are not either defective, corrupted or blank and that the documents can be opened and viewed by Sourcewell.

3. Sourcewell may reject any response where any document(s) cannot be opened and viewed by Sourcewell.

4. If you need to upload more than one (1) document for a single item, you should combine the documents into one zipped file. If the zipped file contains more than one (1) document, ensure each document is named, in relation to the submission format item responding to. For example, if responding to the Marketing Plan category save the document as "Marketing Plan."

- Pricing - RFP 011723 Model & Discount Schedule.pdf - Monday January 09, 2023 11:48:21
- Financial Strength and Stability - Deere-Co_Annual-Report-2021.pdf - Tuesday November 29, 2022 12:34:40
- Marketing Plan/Samples (optional)
- WMBE/MBE/SBE or Related Certificates (optional)
- Warranty Information - US CAN deere wty stmt.pdf - Tuesday December 06, 2022 10:27:02
- Standard Transaction Document Samples - Sample Sourcewell Quote.pdf - Monday January 09, 2023 11:22:37
- Upload Additional Document - Sustainability Report 2021.pdf - Tuesday November 29, 2022 13:01:16

ATTACHMENT 1

Addenda, Terms and Conditions

PROPOSER AFFIDAVIT AND ASSURANCE OF COMPLIANCE

I certify that I am the authorized representative of the Proposer submitting the foregoing Proposal with the legal authority to bind the Proposer to this Affidavit and Assurance of Compliance:

1. The Proposer is submitting this Proposal under its full and complete legal name, and the Proposer legally exists in good standing in the jurisdiction of its residence.

2. The Proposer warrants that the information provided in this Proposal is true, correct, and reliable for purposes of evaluation for contract award.

3. The Proposer, including any person assisting with the creation of this Proposal, has arrived at this Proposal independently and the Proposal has been created without colluding with any other person, company, or parties that have or will submit a proposal under this solicitation; and the Proposal has in all respects been created fairly without any fraud or dishonesty. The Proposer has not directly or indirectly entered into any agreement or arrangement with any person or business in an effort to influence any part of this solicitation or operations of a resulting contract; and the Proposer has not taken any action in restraint of free trade or competitiveness in connection with this solicitation. Additionally, if Proposer has worked with a consultant on the Proposal, the consultant (an individual or a company) has not assisted any other entity that has submitted or will submit a proposal for this solicitation.

4. To the best of its knowledge and belief, and except as otherwise disclosed in the Proposal, there are no relevant facts or circumstances which could give rise to an organizational conflict of interest. An organizational conflict of interest exists when a vendor has an unfair competitive advantage or the vendor's objectivity in performing the contract is, or might be, impaired.

5. The contents of the Proposal have not been communicated by the Proposer or its employees or agents to any person not an employee or legally authorized agent of the Proposer and will not be communicated to any such persons prior to Due Date of this solicitation.

6. If awarded a contract, the Proposer will provide to Sourcewell Participating Entities the equipment, products, and services in accordance with the terms, conditions, and scope of a resulting contract.

7. The Proposer possesses, or will possess before delivering any equipment, products, or services, all applicable licenses or certifications necessary to deliver such equipment, products, or services under any resulting contract.

8. The Proposer agrees to deliver equipment, products, and services through valid contracts, purchase orders, or means that are acceptable to Sourcewell Members. Unless otherwise agreed to, the Proposer must provide only new and first-quality products and related services to Sourcewell Members under an awarded Contract.

9. The Proposer will comply with all applicable provisions of federal, state, and local laws, regulations, rules, and orders.

10. The Proposer understands that Sourcewell will reject RFP proposals that are marked "confidential" (or "nonpublic," etc.), either substantially or in their entirety. Under Minnesota Statutes Section 13.591, subdivision 4, all proposals are considered nonpublic data until the evaluation is complete and a Contract is awarded. At that point, proposals become public data. Minnesota Statutes Section 13.37 permits only certain narrowly defined data to be considered a "trade secret," and thus nonpublic data under Minnesota's Data Practices Act.

11. Proposer its employees, agents, and subcontractors are not:
    1. Included on the "Specially Designated Nationals and Blocked Persons" list maintained by the Office of Foreign Assets Control of the United States Department of the Treasury found at: https://www.treasury.gov/ofac/downloads/sdnlist.pdf;

    2. Included on the government-wide exclusions lists in the United States System for Award Management found at: https://sam.gov/SAM/; or

    3. Presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from programs operated

by the State of Minnesota; the United States federal government or the Canadian government, as applicable, or any Participating Entity. Vendor certifies and warrants that neither it nor its principals have been convicted of a criminal offense related to the subject matter of this solicitation.

☑ By checking this box I acknowledge that I am bound by the terms of the Proposer's Affidavit, have the legal authority to submit this Proposal on behalf of the Proposer, and that this electronic acknowledgment has the same legal effect, validity, and enforceability as if I had hand signed the Proposal. This signature will not be denied such legal effect, validity, or enforceability solely because an electronic signature or electronic record was used in its formation. - Mark Oliver, Manager, Contract Sales, John Deere Construction Retail Sales

The Proposer declares that there is an actual or potential Conflict of Interest relating to the preparation of its submission, and/or the Proposer foresees an actual or potential Conflict of Interest in performing the contractual obligations contemplated in the bid.

○ **Yes** ◉ **No**

The Bidder acknowledges and agrees that the addendum/addenda below form part of the Bid Document.

Check the box in the column "**I have reviewed this addendum"** below to acknowledge each of the addenda.

File Name	I have reviewed the below addendum and attachments (if applicable)	Pages
Addendum_5_Heavy_Construction_Equipment_RFP_011723 Tue January 10 2023 08:47 AM	☑	1
Addendum_4_Heavy_Construction_Equipment_RFP_011723 Fri January 6 2023 09:51 AM	☑	2
Addendum_3_Heavy_Construction_Equipment_RFP_011723 Thu December 29 2022 12:33 PM	☑	2
Addendum_2_Heavy_Construction_Equipment_RFP_011723 Wed December 21 2022 01:49 PM	☑	1
Addendum_1_Heavy_Construction_Equipment_RFP 011723 Thu December 15 2022 09:27 AM	☑	1

Quote Id: 30536367

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
US

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
209-944-5714
sales@belkorpag.com

Prepared For:

CITY OF LIVERMORE

Proposal For:

Delivering Dealer:
Keith Heusel

Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206

sales@belkorpag.com

Quote Prepared By:
Keith Heusel
kheusel@belkorpag.com

Date: 13 March 2024

Offer Expires: 29 March 2024

Confidential

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1120 W Charter Way
Stockton, CA 95206
US

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
209-944-5714
sales@belkorpag.com

Quote Summary

Prepared For:
CITY OF LIVERMORE
3500 ROBERTSON PARK RD
LIVERMORE, CA 94550
Business: 925-260-4178

Delivering Dealer:
Belkorp Ag, LLC
Keith Heusel
1120 W Charter Way
Stockton, CA 95206
Phone: 209-944-5714
kheusel@belkorpag.com

Sourcewell member account number#29785

Quote ID: 30536367
Created On: 13 March 2024
Last Modified On: 14 March 2024
Expiration Date: 29 March 2024

Equipment Summary	Suggested List	Selling Price		Qty		Extended
JOHN DEERE 325G COMPACT TRACK LOADER **Contract:** C&F Sourcewell #011723 (PG CV CG 73) CCE **Price Effective Date:** March 12, 2024	$ 106,920.00	$ 75,834.00	X	1	=	$ 75,834.00
JOHN DEERE 317G Compact Track Loader **Contract:** C&F Sourcewell #011723 (PG CV CG 73) CCE **Price Effective Date:** March 12, 2024	$ 87,059.00	$ 61,931.30	X	1	=	$ 61,931.30
Roof-Mounted Water Tank Kit **Contract:** C&F Sourcewell #011723 (PG CV CG 73) CCE **Price Effective Date:** March 12, 2024	$ 4,130.00	$ 4,130.00	X	1	=	$ 4,130.00
Roof-Mounted Water Tank Kit **Contract:** C&F Sourcewell #011723 (PG CV CG 73) CCE **Price Effective Date:** March 12, 2024	$ 3,467.00	$ 3,467.00	X	1	=	$ 3,467.00
JOHN DEERE RX72 ROTARY CUTTER **Contract:** C&F Sourcewell #011723 (PG CV CG 73) CCE **Price Effective Date:** March 12, 2024	$ 17,105.00	$ 14,878.30	X	1	=	$ 14,878.30
JOHN DEERE CP24G Cold Planer **Contract:** C&F Sourcewell #011723 (PG CV CG 73) CCE **Price Effective Date:** March 12, 2024	$ 35,124.00	$ 30,430.64	X	1	=	$ 30,430.64

Salesperson : X _____ **Accepted By : X** _____

Confidential

JOHN DEERE

BELKORP AG

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
US

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:
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sales@belkorpag.com

66 IN. CONSTRUCTION BUCKET (16.2 CU. FT.) WITH SERRATED EDGE	$ 2,116.00	$ 2,116.00	X	1	=	$ 2,116.00
Contract: C&F Sourcewell #011723 (PG CV CG 73) CCE						
Price Effective Date: March 12, 2024						
72 IN. CONSTRUCTION BUCKET (17.8 CU. FT.) WITH SERRATED EDGE	$ 2,543.00	$ 2,543.00	X	1	=	$ 2,543.00
Contract: C&F Sourcewell #011723 (PG CV CG 73) CCE						
Price Effective Date: March 12, 2024						
Equipment Total						**$ 195,330.24**

Trade In Summary	**Qty**	**Each**	**Extended**
1993 BOBCAT 853H - 510375565	1	$ 5,000.00	$ 5,000.00
PayOff			$ 0.00
Total Trade Allowance			$ 5,000.00
1993 BOBCAT M853 - 510250709	1	$ 5,000.00	$ 5,000.00
PayOff			$ 0.00
Total Trade Allowance			$ 5,000.00
MELROE Planer 18" - 400211309	1	$ 2,000.00	$ 2,000.00
PayOff			$ 0.00
Total Trade Allowance			$ 2,000.00
Trade In Total			**$ 12,000.00**

* Includes Fees and Non-contract items

Quote Summary	
Equipment Total	$ 195,330.24
Trade In	$ (12,000.00)
SubTotal	**$ 183,330.24**
Sales Tax - (10.25%)	$ 19,929.11

Salesperson : X _____ **Accepted By : X** _____

Confidential

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Belkorp Ag, LLC
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Stockton, CA 95206
US

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209-944-5714
sales@belkorpag.com

Est. Service Agreement Tax	$ 0.00
Total	$ 203,259.35
Down Payment	(0.00)
Rental Applied	(0.00)
Balance Due	**$ 203,259.35**

Salesperson : X _____ **Accepted By : X** _____

Confidential

Selling Equipment

Quote Id: 30536367 **Customer Name:** CITY OF LIVERMORE

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
US

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
209-944-5714
sales@belkorpag.com

JOHN DEERE 325G COMPACT TRACK LOADER

Contract: C&F Sourcewell #011723 (PG CV CG 73) CCE
Price Effective Date: March 12, 2024

Suggested List *
$ 106,920.00
Selling Price *
$ 75,834.00

* Price per item - includes Fees and Non-contract items

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
00D2T	325G COMPACT TRACK LOADER	1	$ 84,881.00	30.00	$ 25,464.30	$ 59,416.70	$ 59,416.70
	Standard Options - Per Unit						
170K	JDLink™	1	$ 0.00	30.00	$ 0.00	$ 0.00	$ 0.00
0770	Cab/Heat/AC, Power QT, Hi Flow, SL & RC, 2Spd, LED Lights, Rev Fan, Chrome, Heat Seat, Radio	1	$ 11,345.00	30.00	$ 3,403.50	$ 7,941.50	$ 7,941.50
0953	ISO-H Switchable Controls and EH Joystick Performance Package	1	$ 1,133.00	30.00	$ 339.90	$ 793.10	$ 793.10
1301	Engine - Turbocharged - FT4	1	$ 0.00	30.00	$ 0.00	$ 0.00	$ 0.00
1501	English Operator's Manual and Decals	1	$ 0.00	30.00	$ 0.00	$ 0.00	$ 0.00
2500	Offset Block Lug Tread Pattern - 12.6 in. (320mm) Tracks	1	$ 0.00	30.00	$ 0.00	$ 0.00	$ 0.00
4001	2-Inch Seat Belt with Shoulder Harness	1	$ 232.00	30.00	$ 69.60	$ 162.40	$ 162.40
6006	Air Suspension Seat (Cloth with Heat)	1	$ 684.00	30.00	$ 205.20	$ 478.80	$ 478.80
8042	Rear View Camera	1	$ 931.00	30.00	$ 279.30	$ 651.70	$ 651.70
8060	Engine Air Precleaner	1	$ 498.00	30.00	$ 149.40	$ 348.60	$ 348.60
8305	Counterweight, (Double Set)	1	$ 819.00	30.00	$ 245.70	$ 573.30	$ 573.30
8370	HD Rear Grille	1	$ 532.00	30.00	$ 159.60	$ 372.40	$ 372.40
8380	Footrest with Floormat	1	$ 157.00	30.00	$ 47.10	$ 109.90	$ 109.90
8525	Cab Severe Duty Polycarbonate Door	1	$ 2,408.00	30.00	$ 722.40	$ 1,685.60	$ 1,685.60
	Standard Options Total		**$ 18,739.00**		**$ 5,621.70**	**$ 13,117.30**	**$ 13,117.30**

Confidential

Selling Equipment

Quote Id: 30536367 **Customer Name:** CITY OF LIVERMORE

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
US

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
209-944-5714
sales@belkorpag.com

	Value Added Services Total		**$ 0.00**	**$ 0.00**	**$ 0.00**
			Other Charges		
	Freight	1	$ 2,500.00	$ 2,500.00	$ 2,500.00
	Customer Setup	1	$ 800.00	$ 800.00	$ 800.00
			$ 3,300.00	**$ 3,300.00**	**$ 3,300.00**
	Suggested Price				**$ 75,834.00**
Total Selling Price			**$ 106,920.00**	**$ 31,086.00**	**$ 75,834.00**	**$ 75,834.00**

JOHN DEERE 317G Compact Track Loader

Contract: C&F Sourcewell #011723 (PG CV CG 73) CCE
Price Effective Date: March 12, 2024

Suggested List *
$ 87,059.00
Selling Price *
$ 61,931.30

* Price per item - includes Fees and Non-contract items

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
06L0P	317G Compact Track Loader	1	$ 74,004.00	30.00	$ 22,201.20	$ 51,802.80	$ 51,802.80
			Standard Options - Per Unit				
183E	JDLink™	1	$ 0.00	30.00	$ 0.00	$ 0.00	$ 0.00
0202	United States	1	$ 0.00	30.00	$ 0.00	$ 0.00	$ 0.00
0259	English Operator's Manual	1	$ 0.00	30.00	$ 0.00	$ 0.00	$ 0.00
0351	Translated Text Labels	1	$ 0.00	30.00	$ 0.00	$ 0.00	$ 0.00
0506	EH Joystick Performance, Cab/Heat/AC, Power Quik-Tatch, Self Level & Ride Control, 1 Speed, Attachment Performance, LED Lights	1	$ 7,583.00	30.00	$ 2,274.90	$ 5,308.10	$ 5,308.10
1053	Air Suspension Seat (Cloth with Heat)	1	$ 684.00	30.00	$ 205.20	$ 478.80	$ 478.80
1362	2-Inch Seat Belt with Shoulder Harness	1	$ 232.00	30.00	$ 69.60	$ 162.40	$ 162.40

Confidential

JOHN DEERE

BELKORP AG

Selling Equipment

Quote Id: 30536367 **Customer Name:** CITY OF LIVERMORE

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
US

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
209-944-5714
sales@belkorpag.com

5600	Offset Block Lug Tread Pattern - 12.6 in. (320mm) Tracks	1	$ 0.00	30.00	$ 0.00	$ 0.00	$ 0.00
8047	Counterweight, (Double Set)	1	$ 819.00	30.00	$ 245.70	$ 573.30	$ 573.30
8052	Keyless Start (Sealed Switch Module)	1	$ 437.00	30.00	$ 131.10	$ 305.90	$ 305.90
	Standard Options Total		**$ 9,755.00**		**$ 2,926.50**	**$ 6,828.50**	**$ 6,828.50**
	Value Added Services Total		**$ 0.00**			**$ 0.00**	**$ 0.00**
			Other Charges				
	Freight	1	$ 2,500.00			$ 2,500.00	$ 2,500.00
	Customer Setup	1	$ 800.00			$ 800.00	$ 800.00
			$ 3,300.00			**$ 3,300.00**	**$ 3,300.00**
	Suggested Price						**$ 61,931.30**
Total Selling Price			**$ 87,059.00**		**$ 25,127.70**	**$ 61,931.30**	**$ 61,931.30**

Roof-Mounted Water Tank Kit

Contract: C&F Sourcewell #011723 (PG CV CG 73) CCE
Price Effective Date: March 12, 2024

Suggested List *
$ 4,130.00
Selling Price *
$ 4,130.00

* Price per item - includes Fees and Non-contract items

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
AT4351 29	Roof-Mounted Water Tank Kit	1	$ 2,530.00	0.00	$ 0.00	$ 2,530.00	$ 2,530.00
			Other Charges				
	Freight	1	$ 800.00			$ 800.00	$ 800.00
	Customer Setup	1	$ 800.00			$ 800.00	$ 800.00
			$ 1,600.00			**$ 1,600.00**	**$ 1,600.00**
	Suggested Price						**$ 4,130.00**
Total Selling Price			**$ 4,130.00**		**$ 0.00**	**$ 4,130.00**	**$ 4,130.00**

Confidential

JOHN DEERE

BELKORP AG

Selling Equipment

Quote Id: 30536367 **Customer Name:** CITY OF LIVERMORE

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
US

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
209-944-5714
sales@belkorpag.com

Roof-Mounted Water Tank Kit

Contract: C&F Sourcewell #011723 (PG CV CG 73) CCE
Price Effective Date: March 12, 2024

Suggested List *
$ 3,467.00
Selling Price *
$ 3,467.00

* Price per item - includes Fees and Non-contract items

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
AT3452 12	Roof-Mounted Water Tank Kit	1	$ 1,867.00	0.00	$ 0.00	$ 1,867.00	$ 1,867.00
	Other Charges						
	Freight	1	$ 800.00			$ 800.00	$ 800.00
	Customer Setup	1	$ 800.00			$ 800.00	$ 800.00
			$ 1,600.00			**$ 1,600.00**	**$ 1,600.00**
	Suggested Price						**$ 3,467.00**
Total Selling Price			**$ 3,467.00**		**$ 0.00**	**$ 3,467.00**	**$ 3,467.00**

JOHN DEERE RX72 ROTARY CUTTER

Contract: C&F Sourcewell #011723 (PG CV CG 73) CCE
Price Effective Date: March 12, 2024

Suggested List *
$ 17,105.00
Selling Price *
$ 14,878.30

* Price per item - includes Fees and Non-contract items

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
83A1T	RX72 ROTARY CUTTER	1	$ 15,905.00	14.00	$ 2,226.70	$ 13,678.30	$ 13,678.30
	Other Charges						
	Freight	1	$ 1,000.00			$ 1,000.00	$ 1,000.00
	Customer Setup	1	$ 200.00			$ 200.00	$ 200.00
			$ 1,200.00			**$ 1,200.00**	**$ 1,200.00**
	Suggested Price						**$ 14,878.30**
Total Selling Price			**$ 17,105.00**		**$ 2,226.70**	**$ 14,878.30**	**$ 14,878.30**

Confidential

Selling Equipment

Quote Id: 30536367 **Customer Name:** CITY OF LIVERMORE

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
US

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
209-944-5714
sales@belkorpag.com

JOHN DEERE CP24G Cold Planer

Contract: C&F Sourcewell #011723 (PG CV CG 73) CCE
Price Effective Date: March 12, 2024

Suggested List *
$ 35,124.00
Selling Price *
$ 30,430.64

* Price per item - includes Fees and Non-contract items

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
82B1T	CP24G Cold Planer	1	$ 28,947.00	14.00	$ 4,052.58	$ 24,894.42	$ 24,894.42
	Standard Options - Per Unit						
9000	G-Series SSL/CTL Vehicle Harness for CPs	1	$ 1,043.00	14.00	$ 146.02	$ 896.98	$ 896.98
9001	Cold Planer Gateway for G-Series SSL/CTL	1	$ 1,659.00	14.00	$ 232.26	$ 1,426.74	$ 1,426.74
9002	Water Tank Kit	1	$ 1,875.00	14.00	$ 262.50	$ 1,612.50	$ 1,612.50
	Standard Options Total		**$ 4,577.00**		**$ 640.78**	**$ 3,936.22**	**$ 3,936.22**
	Other Charges						
	Freight	1	$ 1,000.00			$ 1,000.00	$ 1,000.00
	Customer Setup	1	$ 600.00			$ 600.00	$ 600.00
			$ 1,600.00			**$ 1,600.00**	**$ 1,600.00**
	Suggested Price						**$ 30,430.64**
	Additional Discounts						
	Additional Discount Total				**$ 0.00**	**$ -0.00**	**$ -0.00**
Total Selling Price			**$ 35,124.00**		**$ 4,693.36**	**$ 30,430.64**	**$ 30,430.64**

66 IN. CONSTRUCTION BUCKET (16.2 CU. FT.) WITH SERRATED EDGE

Hours:
Stock Number:
Contract: C&F Sourcewell #011723 (PG CV CG 73) CCE
Price Effective Date: March 12, 2024

Suggested List *
$ 2,116.00
Selling Price *
$ 2,116.00

* Price per item - includes Fees and Non-contract items

Confidential

Selling Equipment

Quote Id: 30536367 **Customer Name:** CITY OF LIVERMORE

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
US

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:
Belkorp Ag, LLC
1120 W Charter Way
Stockton, CA 95206
209-944-5714
sales@belkorpag.com

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
BYT10855	66 IN. CONSTRUCTION BUCKET (16.2 CU. FT.) WITH SERRATED EDGE	1	$ 2,116.00	0.00	$ 0.00	$ 2,116.00	$ 2,116.00
Total Selling Price			**$ 2,116.00**		**$ 0.00**	**$ 2,116.00**	**$ 2,116.00**

72 IN. CONSTRUCTION BUCKET (17.8 CU. FT.) WITH SERRATED EDGE

Equipment Notes:
Hours:
Stock Number:
Contract: C&F Sourcewell #011723 (PG CV CG 73) CCE
Price Effective Date: March 12, 2024

Suggested List *
$ 2,543.00
Selling Price *
$ 2,543.00

* Price per item - includes Fees and Non-contract items

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
BYT10854	72 IN. CONSTRUCTION BUCKET (17.8 CU. FT.) WITH SERRATED EDGE	1	$ 2,543.00	0.00	$ 0.00	$ 2,543.00	$ 2,543.00
Total Selling Price			**$ 2,543.00**		**$ 0.00**	**$ 2,543.00**	**$ 2,543.00**

Confidential

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION AUTHORIZING ISSUANCE OF A PURCHASE ORDER TO BELKORP AG, LLC FOR TWO REPLACEMENT JOHN DEERE TRACK STEER LOADERS AND ASSOCIATED ATTACHMENTS IN AN AMOUNT NOT-TO-EXCEED $203,260

The City of Livermore ("City") Maintenance and Water Resources Divisions utilize tractors to assist in performing various services, including weed abatement, street grinding, broom sweeper cleanup, material handling, and storm water channel cleanup. The City's Fleet Policy currently recommends the replacement of two City-owned tractors.

Livermore Municipal Code section 2.68.370 allows for the purchase of equipment with a value higher than $50,000 through a cooperative purchasing arrangement. Livermore Municipal Code section 2.68.390 identifies specific cooperative purchasing agencies and counties that are pre-approved.

John Deere Construction Retail Sales a Division of John Deere Shared Services, LLC ("Supplier") holds the Sourcewell (formerly National Joint Powers Alliance) competitively bid cooperative purchasing contract for the procurement of heavy construction equipment with related attachments and technology. Livermore Municipal Code section 2.68.390 identifies the National Joint Powers Alliance as an approved cooperative purchasing arrangement.

The City received a quote from Belkorp Ag, LLC for two John Deere track steer loaders and associated attachments in the amount of $203,260. Belkorp Ag, LLC is an authorized dealer of construction equipment and related attachments manufactured by Supplier.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore that it hereby:

1. Authorizes the City Manager, or her designee, to execute a purchase order, on behalf of the City of Livermore, with Belkorp Ag, LLC in an amount not-to-exceed $203,260 for the purchase and delivery of a John Deere 325G Compact Track Loader, a John Deere 317G Compact Track Loader, and associated attachments, in accordance with the terms, specifications and general provisions specified in Sourcewell Contract #011723-JDC and sections 2.68.370 and 2.68.390 of the Livermore Municipal Code.

2. Authorizes the City Manager, or her designee, to take whatever actions are necessary and appropriate to carry out the purpose and intent of this resolution.

On motion of Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted on March 25, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

ATTEST:

_____
Deborah L. Elam
Acting City Clerk

APPROVED AS TO FORM:

/s/ Molly O'Toole
Molly O'Toole
Deputy City Attorney

LIVERMORE
CALIFORNIA

CITY COUNCIL STAFF REPORT **ITEM NO. 5.5**

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Judy Erlandson, Acting Public Works Director

SUBJECT: Resolution authorizing execution of a first amendment to the Airport Restaurant Lease Agreement with SAAB13, LLC.

RECOMMENDED ACTION

Staff recommends that the City Council adopt a resolution authorizing the City Manager to execute the first amendment to the Airport Restaurant Lease Agreement with SAAB13, LLC as agreed upon in the Settlement Agreement and Lease Amendment dated February 29, 2024.

SUMMARY

Due to non-payment of rents owed and lack of appropriate insurance, the City pursued SAAB13, LLC, the owner and operator of Elevation LVK restaurant at Livermore Airport for collection as well as recommended changes to the lease agreement to allow for a continued partnership.

Staff recommends that the City Council adopt a resolution authorizing the execution of the amendments to the Airport Restaurant Lease Agreement with SAAB13, LLC and authorizing the City Manager to sign the lease amendment.

DISCUSSION

SAAB13, LLC, owner and operator of Elevation LVK at the Livermore Airport, was behind on rent payments and lacked appropriate insurance.

City staff notified SAAB13, LLC of the non-payment of amounts owed to the Airport pertaining to their tenancy in addition to other matters requiring resolution, such as maintaining required insurance coverages. City staff sent a number of letters requesting action by SAAB13, LLC to meet the terms of their lease.

Ultimately, the issue culminated with both parties entering into a dispute resolution process to achieve resolution. The outcome resulted in a settlement agreement where SAAB13, LLC agreed to remit payment of rental amounts owed in addition to obtaining appropriate insurance. Additionally, the

settlement agreement incorporated City and counter party requested amendments to the Lease in order for the partnership to continue. These amendments are a reflection of the settlement agreement and are included in the amended lease language.

Adoption of the resolution and approval of the lease amendment finalizes the actions taken by both parties to achieve resolution of this matter. Staff recommends that the City Council adopt a resolution authorizing the execution of the amendment to the Airport Restaurant Lease Agreement with SAAB13, LLC and authorizing the City Manager to sign the lease amendment.

FISCAL AND ADMINISTRATIVE IMPACTS

The City will receive $200,291 from SAAB13, LLC for back rent, bringing their account up to date.

COMMUNITY PILLAR

5: A City that Works

GOAL

14: Develop, operate and maintain the City's infrastructure.

ATTACHMENTS

1. Resolution
2. Exhibit A - First Amendment

Prepared by: Benedict Stuth
Acting Airport Manager

Approved by:

Marianna Marysheva
City Manager

Fiscal Review by:

Tina Olson
Administrative Services Director

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION AUTHORIZING EXECUTION OF A FIRST AMENDMENT TO THE AIRPORT RESTAURANT LEASE AGREEMENT WITH SAAB13 LLC

The City of Livermore ("City") entered into an Airport Restaurant Lease Agreement ("Agreement") for construction and operation of a restaurant, Elevation LVK, at the Livermore Municipal Airport with SAAB13 LLC on May 15, 2017.

Due to non-payment of rents owed and lack of appropriate insurance, the City and SAAB13 LLC have subsequently entered into a Settlement Agreement and Lease Amendment dated February 29, 2024 ("Settlement Agreement"), that requires the parties to execute a separate, standalone Lease Amendment, which must be fully executed by April 1, 2024.

This First Amendment to the Agreement with SAAB 13 LLC includes revisions to the Agreement that are required pursuant to the Settlement Agreement.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore that it hereby:

1. Approves the First Amendment to Lease between the City and SAAB13 LLC as agreed upon between the parties in the Settlement Agreement and Lease Amendment dated February 29, 2024.

2. Authorizes the City Manager to sign the First Amendment to Lease, a copy of which is attached as Exhibit A and incorporated by this reference.

On motion of Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted on March 25, 2024 by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

ATTEST:

_____
Deborah L. Elam
Acting City Clerk

APPROVED AS TO FORM:

/s/ Tara Mazzanti
Tara Mazzanti
Assistant City Attorney

Exhibit A – First Amendment to Lease between the City of Livermore and SAAB 13 LLC

275-214
[Rev. 09/20/13]

PLEASE COMPLETE THIS INFORMATION

RECORDING REQUESTED BY:
CITY CLERK, CITY OF LIVERMORE

WHEN RECORDED MAIL TO:

NAME: CITY CLERK, CITY OF LIVERMORE

ADDRESS: 1052 S LIVERMORE AVE

CITY/STATE/ZIP: LIVERMORE, CA 94550-4899

THIS SPACE FOR RECORDER'S USE ONLY

24-0160

DOCUMENT TITLE

First Amendment to Airport Restaurant Lease Agreement

By and Between

The City of Livermore and SAAB13, LLC

Recorded Document 2018075761 (04/16/2018)

THIS PAGE ADDED TO PROVIDE ADEQUATE SPACE FOR RECORDING INFORMATION (Govt. Code 27361.6)
(additional recording fee applies)

FIRST AMENDMENT TO LEASE

SAAB13 LLC

THIS FIRST AMENDMENT TO LEASE is entered into by and between the City of Livermore ("Lessor"), a municipal corporation, and SAAB13 LLC ("Lessee"), a California limited liability company. Lessor and Lessee are referred to collectively as the "Parties."

RECITALS

Lessor owns real property located at 680 Terminal Circle, Livermore, California 94551 and commonly referred to as the Livermore Municipal Airport Administration Building (the "Property").

On or about April 10, 2018, the Parties entered into an Airport Restaurant Lease Agreement ("Lease") for a portion of the Property (the "Premises"). The Lease required Lessee to design, construct, and operate a restaurant and concession space on the Premises.

On February 29, 2024, the Parties executed a Settlement Agreement and Lease Amendment ("Settlement Agreement"). Pursuant to the Settlement Agreement, the Parties agreed to amend the Lease within thirty days of the last signature to the Settlement Agreement.

The Parties now wish to amend the Lease as agreed and specified in the terms of the Settlement Agreement.

AGREEMENT

NOW, THEREFORE, Lessor and Lessee hereby agree that the aforementioned recitals are true and correct and further agree as follows:

1. The Lease is amended as follows:

   A. Section 2.5 of the Lease is removed in its entirety.

   B. Section 3.4 of the Lease is amended to read as follows:

      Days of Operation. Lessee agrees to ensure that, with the exception of certain holidays including, without limitation, New Year's Day, Thanksgiving, and Christmas Day, the restaurant and café/concession retail sales operations are open during the following days and hours:

      a. Wednesdays, Thursdays, and Fridays: 11:00 AM to 8:00 PM;
      b. Saturdays: 10:00 AM to 8:00 PM; and
      c. Sundays: 10:00 AM to 3:00 PM.

No change to the days and hours of operation shall be made without the prior written approval of the Airport Manager, which change may be made without the approval of the Livermore City Council.

C. Section 6.1 of the Lease is amended to read as follows:

Options to Extend. The Lease may be extended for three successive terms ("Renewal Options") upon mutual written agreement(s) signed by both Lessee and Lessor. Each Renewal Option shall be for a seven (7) year period (the "Option Term").

D. Section 6.1.2 of the Lease is removed in its entirety.

E. Section 6.1.3 of the Lease is amended to read as follows:

Lessor and Lessee hereby agree to extend the Term of the Lease for the first of the three Renewal Options. The Term of the Lease shall now expire on August 31, 2032. The second and third Renewal Options are exercisable only by a mutual written agreement ("Option Notice") signed by both Lessee and Lessor at least six (6) months, but not more than one (1) year, before the expiration of the first Renewal Option or the second Renewal Option. A separate written agreement is required to exercise each Renewal Option. Lessor may withhold its consent to the second and third Renewal Options for any reason. If Lessor withholds consent, the Lease shall terminate as of the end of the first Renewal Option or the Second Renewal Option, as applicable. The third Renewal Option is extinguished if the Lease is not extended for a second Renewal Option by mutual written agreement of Lessee and Lessor.

F. Section 13.1 of the Lease is removed in its entirety.

2. These amendments are prospective and apply after the execution of the Settlement Agreement. Unless otherwise stated herein, these amendments to the Lease and the Settlement Agreement do not relieve the Parties of the terms and conditions of the Lease as currently written and in effect.

3. Except as amended in the Settlement Agreement, the Lease remains in full force and effect.

****Signatures on Next Page****

IN WITNESS WHEREOF, the parties have executed this Agreement the day and year last below written.

CITY OF LIVERMORE

By: _____
Marianna Marysheva
City Manager

Date: _____

APPROVED AS TO FORM:

_____
Assistant/City Attorney

SAAB13 LLC

By: _____
Harmail Chatha
Member of SAAB13 LLC

Date: 3/15/24

APPROVED AS TO FORM:

_____
Soby Mathews

CALIFORNIA ACKNOWLEDGMENT CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Santa Clara }

On March 15, 2024 (Date) before me, Daniel A. Reese, Notary Public (Here Insert Name and Title of the Officer)

personally appeared Soby Mathews (Name(s) of Signer(s))

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

DANIEL A. REESE
Notary Public - California
Santa Clara County
Commission # 2407648
My Comm. Expires Jun 9, 2026

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Signature of Notary Public)

Place Notary Seal and/or Stamp Above

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: First Amendment to Lease

Document Date: 3/15/24 Number of Pages: 4

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____	Signer's Name: _____
☐ Corporate Officer – Title(s): _____	☐ Corporate Officer – Title(s): _____
☐ Partner – ☐ Limited ☐ General	☐ Partner – ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other: _____	☐ Other: _____
Signer is Representing: _____	Signer is Representing: _____

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CALIFORNIA ACKNOWLEDGMENT CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Santa Clara }

On March 15, 2024 before me, Daniel A. Reese, Notary Public
Date *Here Insert Name and Title of the Officer*

personally appeared Harmail Chatha
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

DANIEL A. REESE
Notary Public - California
Santa Clara County
Commission # 2407648
My Comm. Expires Jun 9, 2026

Place Notary Seal and/or Stamp Above

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____
Signature of Notary Public

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document
Title or Type of Document: First Amendment to Lease
Document Date: 3/15/24 Number of Pages: 3 4
Signer(s) Other Than Named Above: _____

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Signer's Name: Harmail Chatha	Signer's Name: _____
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☐ Individual ☐ Attorney in Fact	☐ Individual ☐ Attorney in Fact
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☑ Other: Member of SAABI3 LLC	☐ Other: _____
Signer is Representing: _____	Signer is Representing: _____

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LIVERMORE
CALIFORNIA

CITY COUNCIL STAFF REPORT **ITEM NO. 5.6**

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Marie Weber, Deputy City Manager/City Clerk

SUBJECT: Resolution approving the 2024 City of Livermore State and Federal Legislative Platform

RECOMMENDED ACTION

Staff recommends the City Council adopt a resolution approving the 2024 City of Livermore State and Federal Legislative Platform.

SUMMARY

The City of Livermore's State and Federal Legislative Platform allows the City to respond quickly in support of or opposition to legislative issues for the benefit of the Livermore community.

DISCUSSION

The City of Livermore State and Federal Legislative Platform (Platform) documents the City's position in several legislative categories. The proposed positions and categories are based on community priorities and values, and policy documents. The Platform provides a framework to respond quickly to legislative bills and communicate with legislators on issues affecting Livermore.

The City Council adopted its first state platform in 2013. In 2015, the City Council directed staff to also use the Platform as a guide for federal bill tracking and action. Annual updates to the Platform reflect adjustments based on changing City needs, interests and conditions at the regional, state and federal levels.

The 2024 Platform categories are:

- Community-Focused Governance
- Fiscal Stability
- Affordable Housing and Homelessness
- Planning and Sustainability
- Building Safety
- Infrastructure
- Job Creation and Economic Development

- Libraries
- Public Safety and Emergency Management
- Science, Technology, and Innovation
- Transportation and Parking
- Water

The proposed 2024 City of Livermore State and Federal Legislative Platform is included as Exhibit A to the Resolution for this report and once approved will be accessible on the City's website at www.LivermoreCA.gov/Legislation. Attachment 1 to this report is a redlined version of the updates made to this year's Platform.

Further, when appropriate, the City of Livermore joins its Tri-Valley neighbors to advocate for issues and funding at the regional, state and federal levels. The cities of Livermore, Dublin, Pleasanton, San Ramon, and the town of Danville developed a Tri-Valley Cities Legislative Framework. The Tri-Valley Framework overlaps many of the items in the City’s Platform and provides another opportunity for advocacy progress and success. The 2024 Tri-Valley Cities Legislative Framework is included as Attachment 2 to this report.

FISCAL AND ADMINISTRATIVE IMPACTS

There are no fiscal or administrative impacts associated with City Council adoption of the 2023 City of Livermore State and Federal Legislative Platform.

COMMUNITY PILLAR

5: A City That Works

GOAL CATEGORY

3: Oversee the City's legislative advocacy efforts

ATTACHMENTS

1. Draft 2024 Legislative Platform - Redlined
2. 2024 TVC Legislative Framework
3. Resolution
4. Exhibit A - Draft 2024 Legislative Platform

Prepared by: Marie Weber
Deputy City Manager

Approved by:

Marianna Marysheva
City Manager

Fiscal Review by:

Tina Olson
Administrative Services Director

City of Livermore
2024~~3~~ State and Federal Legislative Platform

(DRAFT)

CITY OF
LIVERMORE
CALIFORNIA

The City of Livermore ("City") 2024~~3~~ State and Federal Legislative Platform ("Platform") highlights the position of the City Council on important issues that align with community goals and policy documents such as the General Plan. City staff monitor bills introduced into the California Legislature and United States Congress. The Platform provides staff direction and allows the City, on the City Council's behalf, to respond quickly in support of or opposition to bills and other legislative or administrative actions in time-sensitive situations. The City Council delegates its authority to the mayor to sign support or opposition letters, consistent with the Platform. Additionally, the Platform enables staff to communicate on behalf of the City to state legislators and federal elected officials.

The Platform is developed through review of City needs and issues, staff input, and review of League of California Cities priorities and strategies. City Council adopted the first Platform in 2013. At its April 13, 2015, meeting, City Council directed staff to use the Platform as a guide for federal bill tracking and action, too. Typically, the City Council reviews and updates the Platform annually.

The 2024~~3~~ City of Livermore Platform categories are:

- Community-Focused Governance
- Fiscal Stability
- Affordable Housing and Homelessness
- Planning and Sustainability
- Building Safety
- Infrastructure
- Job Creation and Economic Development
- Libraries
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- Transportation and Parking
- Water

The State and Federal Legislative Platform evolves as City needs adjust, new issues arise, and conditions at the regional, state, and federal level change. Platform adjustments, whether due to federal policy changes or state policy reactions, may be considered at a future City Council meeting or at the next annual review in 2025~~4~~.

Once approved by the City Council, the 2024~~3~~ State and Federal Legislative Platform will be posted on the City's website at www.LivermoreCA.gov/Legislation. Staff also provides the City Council with periodic updates on letters sent, bill progress, and legislative developments.

When appropriate, the City of Livermore joins its Tri-Valley neighbors to advocate for issues and funding at the regional, state, and federal levels. The cities of Livermore, Dublin, Pleasanton, San Ramon, and the town of Danville develop a Tri-Valley Cities Legislative Framework. The Tri-Valley Framework overlaps many of the items in the City's Platform and provides another opportunity for advocacy progress and success.

The Tri-Valley Cities Legislative Framework is available to view at www.LivermoreCA.gov/Legislation.

Community-Focused Governance

The City values its ability to create policies that best fit the needs of the Livermore community. It is important to advocate for state legislation the provides framework guidance and allows local implementation.

1. **Support** legislation that enhances or streamlines local governance and allows cities to address the needs of local constituents within a framework of regional cooperation.

2. **Monitor** legislation that affects the ability of City Council to effectively govern.

3. **Monitor** cannabis-related legislation.

4. **Oppose** legislation that would prohibit or limit local governments' ability to contract out for services.

5. **Support** legislation that updates both the Brown Act and Public Records Act regarding electronic records and activities that support local decision-making without significant fiscal impact and new regulations that require staff resources.

6. **Oppose** legislation that requires or expands state involvement in City financial audits, fiscal monitoring, general oversight, or assistance by the State Treasurer, State Controller, or other state agencies.

7. **Support** a wording change in the Communications Act of 1934 that removes the distinction between "capital" and "operating" funds in order to provide more local control for community television stations in the use of their public, educational and government (PEG) channel fees with no rise in taxes or a reduction in revenue to the cable industry.

Fiscal Stability

Fiscal stability and financial independence are necessary to provide desired services and programs for residents and local businesses. City Council policy decisions direct staff to ensure the City's long-term financial stability. Unexpected diversion of local funds by the state or federal government erodes the ability of a city to plan and budget for short-and-long term service needs.

1. **Oppose** legislation that imposes unfunded or inadequate state or federal mandates.

2. **Support** legislation that updates the tax structure to enhance local government revenues that have declined due to the expansion of e-commerce, increased

consumption of services rather than durable goods, and innovations in technology.

3. **Oppose** legislation that reduces local government's ability to levy fees

4. **Monitor** legislation regarding new fees or other revenue-enhancements.

5. **Oppose** legislation that reduces or eliminates payments to cities for use of property and rights-of-way for telecommunications.

6. **Support** legislation that provides sustainable and secure public pensions and other post-retirement benefits to ensure responsive and affordable public services.

7. **Support** legislation that streamlines the Workers' Compensation system.

8. **Oppose** legislation that would remove the federal tax exemption for municipal bonds.

Affordable Housing and Homelessness

The availability of a suitable living environment is essential to quality-of-life. It is important to support adequate and affordable housing opportunities and housing-related service needs.

1. **Support** regional solutions that balance housing, transportation/transit, and jobs together. Building housing without adequate transportation infrastructure may exacerbate, not alleviate, the affordable housing crisis.

2. **Support** legislation that protects existing affordable housing stock, including rental apartments, deed-restricted units, and mobile homes, and promotes affordable housing that includes long-term affordability agreements.

3. **Support** legislation that ensures incentives and density bonus provisions are directly linked to the level and percentage of affordable units provided for each project.

4. **Support** legislation that enables cities to develop locally appropriate plans that meet state objectives in a manner that is compatible with existing community character.

5. **Support** legislation that facilitates accessory dwelling units and encourages development of "missing-middle" housing that is compatible with suburban community character.

6. **Oppose** housing legislation that is not accompanied by funding that can support expanded transportation, transit, and infrastructure, including planning, and capital improvement programs and funding to support new school facilities.

7. **Oppose** housing legislation that results in a net loss of local funding.

8. **Support** housing legislation that promotes the development and enhancement of a diverse workforce, as long as the legislation does not create an unfunded mandate or conflict with local land use authority and financial stability.

9. **Oppose** housing legislation that unduly impacts local taxation capacity or diverts financial resources from essential local public services and infrastructure programs.

10. **Support** legislation that increases financial assistance to cities, non-profit organizations, and local partnerships to provide affordable, transitional, special needs, and emergency housing to the homeless, seniors, veterans, and people with special needs.

11. **Support** legislation that increases financial assistance to cities, non-profit organizations, and local partnerships to provide and promote self-empowerment for homeless individuals or families through counseling, job training, and other related services.

12. **Support** legislation that provides financial assistance, improved access to, and expansion of health care, mental health, and drug addiction services for low income and homeless individuals.

13. **Support** legislation that removes fair housing barriers and prevents displacement.

Planning and Sustainability

The City prioritizes comprehensive land use planning that creates complete neighborhoods, promotes a jobs/housing match, strengthens Livermore's economic and fiscal base, provides housing choice, promotes local control with public input, streamlines the permitting process, conserves wildlands, promotes environmental stewardship while reducing the City's environmental footprint, and generally improves the community's quality of life. ~~Comprehensive land use planning coupled with environmental stewardship, such as mandatory reductions in greenhouse gases, emissions, solid waste generation, and energy consumption are vital to a community's quality of life.~~

1. **Oppose** legislation that diminishes cities' decision-making authority over land use decisions, ~~or~~ zoning, or permit process and timelines.

2. **Support** legislation preserving or enhancing the federal Community Development Block Grant (CDBG) program.

3. **Support** land use patterns that maintain safe ~~residential~~ neighborhoods, bolster

economic prosperity, provide local jobs, preserve open space, protect the environment, and enhance overall quality of life.

4. **Oppose** state or federal efforts to further erode local government authority regarding the location or permit review of small cell wireless equipment, cellular towers, transmission sites, or other devices on public infrastructure or in the public right of way.

5. **Support** funding and incentives for smart growth and sustainable development.

6. **Support** CEQA-reform legislation that improves the cost-effective and timely delivery of projects and decreases the ability for spurious lawsuits.

7. **Support** RHNA- and APR-reform legislation that adequately provides necessary housing while reducing municipal administrative burden.

8. Support tax rebate programs, like the Williamson Act or Mills Act, to promote agriculture, open space preservation, historic preservation, and good design.

9. **Support** legislation or grant opportunities for cities that provide funding for developing or enhancing alternative vehicle fueling stations.

10. **Support** rebate programs, tax credits, and other financial incentives that encourage property owners to invest in energy efficiency and renewable energy systems, greenhouse gas-reducing technology, and alternative vehicle fueling stations in parking areas.

11. **Monitor** state and federal legislation related to climate adaptation.

12. **Support** measures that increase funding to local governments for landfill diversion programs such as food recovery, composting, and recycling.

13. **Support** Extended Producer Responsibility (EPR) legislation to encourage manufacturers to design environmentally friendly products by holding producers responsible for the costs of managing their products at end of life.

Building Safety

The City prioritizes protection of public health, safety and welfare by proper building design and construction practices.

1. **Support** legislation that increases the safety of buildings, reduces potential hazards and protects against fire and structure collapse.

2. **Support** legislation for seismic earthquake retrofits to protect individuals and structures.

3. **Support** legislation that contributes to the quality and durability of construction methods and materials

4. ~~**Monitor**~~ **Oppose** legislation to restrict number of inspections needed to verify safety of the built environment and other components.

5. **Support** measures to streamline photovoltaic and electrical vehicle charging permitting and installation.

6. **Support** legislation that contributes to the wellbeing of a community, preservation of life safety, and property maintenance.

7. **Support** legislation that promotes barrier removal and sustainable practices in the built environment.

8. **Oppose** legislation that establishes unrealistic timeliness for building project review that will potentially create an unsafe built environment.

Infrastructure

The condition of a city's infrastructure affects the community's quality-of-life. Sewer and water systems, sidewalks, and roads are subject to a wide number of regulations and must be maintained or replaced to ensure the health of the community.

1. **Support** state and federal legislation that would expand connectivity and access to digital resources.

2. **Oppose** legislation regarding infrastructure such as sidewalk repair that increases a city's unfunded infrastructure liability.

3. **Support** state and federal legislation that provides additional funding and/or preferred financing for local critical unmet infrastructure needs.

4. **Support** legislation that reduces or streamlines state and federal permitting requirements.

5. **Support** legislation that enhances the reliability of water transmission and storage through the Delta to the Tri-Valley.

6. **Support** legislation that provides new funding methods for flood control and stormwater management.

7. **Support** legislation that would acknowledge an adopted California Environmental Quality Act (CEQA) document can be substituted for a federal National Environmental Protection Agency (NEPA) document for infrastructure projects.

8. **Monitor** legislation that alters the state's agency permitting requirements and how they impact the timeliness and viability of natural resource projects planned by government agencies and special districts at the local and regional level including Fish and Game endowments.

Job Creation and Economic Development

The City encourages and supports business through strategic economic development initiatives. Fostering a strong business environment requires job creation, educational opportunities, and workforce development programs.

1. **Support** legislation that enhances or expands community and economic development tools and funding to address development and revitalization needs.

2. **Support** legislation or grants that focus on downtown development.

3. **Support** legislation that promotes and funds workforce development and re-training efforts focused on high-skilled jobs required by emerging industries.

4. **Support** legislation that encourages entrepreneurship, facilitates resource-sharing models, or otherwise reduces barriers to entry for small business.

5. **Support** legislation that provides insurance or loan guarantees for small business loans during recessionary periods.

6. **Support** legislation or grants that focus on walkable, transit oriented, and complete districts with access to jobs and services.

Libraries

The Livermore Public Library connects people with information and education, and inspires experiences that support lifelong learning, personal growth, and enhanced quality of life. With strong community support, the Library offers programs, materials, materials, and services most valued by residents.

1. **Support** legislation that increases financial assistance to cities to ~~provide~~ fund and promote local library programs and literacy services.

2. **Support** legislation that seeks to close the digital divide through funding local library~~ies~~ efforts to ~~such a way they~~ provide broadband internet and ~~devices~~ technology through devices such as hotspots, computers, and tablets, for community members to access.

3. **Support** legislation and funding efforts relating to early literacy, school readiness, adult literacy, career development, vocational support, and assistance to vulnerable and under-served populations.

4. **Oppose** censorship and efforts to limit the public's intellectual freedom and access to information and resources.

5. **Support** the enhancement of inclusivity, efforts to offer open and unfettered access to information, ~~and~~ the exchange of ideas, and the welcoming of all people to express themselves regardless of their politics or beliefs.

6. **Support** legislation that fosters growth during the transformation of libraries and library services in a dynamic and increasingly global digital information environment.

7. **Support** legislation that protects the privacy of patrons and their associated library records and data.

8. **Support** legislation that enhances equitable, diverse, and inclusive initiatives and opportunities.

Public Safety and Emergency Management

Effective public safety significantly enhances a community's quality-of-life. Maintaining a strong safety presence requires ongoing local, regional, state, and federal support.

1. **Support** legislation and grants that fund police and fire equipment upgrades, training, and capital improvements.

2. **Support** legislation that promotes and funds emergency management and recovery efforts.

3. **Support** legislation that maintains and increases grant funding for the Community Oriented Police Services (COPS) hiring program.

4. **Monitor** legislation pertaining to unmanned aircrafts (drones) and Federal Aviation Administration regulations.

5. **Support** legislation to increase penalty for prohibited persons in possession of firearms and use of firearms in the commission of a crime.

6. **Support** legislation that penalizes individuals who engage in drug and/or distracted driving activities.

7. **Support** legislative efforts to address the negative impacts of Proposition 47 (Reduced Penalties for Some Crimes, 2014) and Proposition 57 (Parole for Non-Violent Criminals and Juvenile Court Trial Requirements Initiative, 2016) and provide local law enforcement with tools to reduce criminal activity.

8. **Support** legislation that would provide funding and increase access to mental health care, response to mental health related calls for service, and drug/ alcohol treatment programs.

Science, Technology, and Innovation

As the only City in the United States with two national laboratories, science, technology, and innovation play an important role in the Livermore economy, workforce, and community values. Additionally, the City partnership with the labs and i-GATE fosters innovation, job creation, and economic development opportunities.

1. **Support** legislation that advances or encourages innovation, entrepreneurship, start-ups, small business opportunities, and/or workforce development.

2. **Support** legislation that encourages the expansion of STEM (Science, Technology, Engineering, and Mathematics) programs in K-12, higher education, libraries, and community-based organizations.

3. **Support** legislation that encourages and supports the transfer of technology from the national laboratories.

4. **Support** legislation that provides competitive grants, state partnerships, or other resources to encourage innovation and the science, technology, and innovation economies.

5. **Support** legislation that improves the abilities of the federal laboratories to update or expand their infrastructure.

Transportation and Parking

Regional and local transportation play a key role in a community's economic vitality and quality-of-life.

1. **Support** legislation that reduces congestion along Tri-Valley area freeways or reduces truck traffic along I-580 through roadway or rail improvements.

2. **Support** legislation that enhances the ability of local agencies to finance local transportation programs and facilities.

3. **Support** legislation that facilitates connectivity between major regional rail/transit systems.

4. **Support** legislation that provides incentives for rail and multimodal transit stations and transit-oriented development projects.

5. **Oppose** legislation mandating "one-size-fits-all" parking space requirements for future housing, entertainment, or retail developments or impinging on how parking spaces can be used.

6. **Support** legislation that provides incentives for shared public/private partnerships.

7. **Monitor** legislation that defines "high quality transit" for purposes of transit-oriented development as anything with service headways above hourly. Review on case-by-case basis to determine any impacts and/or benefits.

8. **Support** legislation to encourage the sale of unleaded fuel and assistance to pilots for Supplemental Type Certificate acquisition for non- American Society for Testing and Materials unleaded fuels at airports nationwide.

Water

Water, both quantity and quality, is essential to residential quality-of-life as well as agricultural and economic vitality and growth.

1. **Oppose** legislation that imposes a state tax or fee on customers of a public water system for drinking water.

2. **Monitor** legislation developing new water conveyance systems such as peripheral canals or tunnels (as mentioned in the proposed Bay Delta

Conservation Plan) to deliver adequate water to the Tri-Valley and the Silicon Valley.

3. **Support** legislation that expands the production and use of recycled water or increases local control of water supplies.

4. **Oppose** legislation that expands statewide mandatory water conservation and/or rationing unless the conservation measures are triggered in response to specific local water supply conditions.

5. **Support** legislation that allows direct and indirect potable water reuse.

6. **Oppose** legislation that allows the State Water Resources Control Board or Regional Water Quality Control Board to establish more stringent, clean water objectives unless the legislation provides a demonstrated water quality benefit as well as the means for jurisdictions to achieve the objectives.

7. **Support** regulations to protect drinking water from the impacts of hydrological fracturing (hydro-fracking) related to oil and gas exploration and extraction.

8. **Support** legislation and programs that make water, sewer, and/or storm services more affordable for customers.

TRI-VALLEY CITIES
Legislative Framework

TRI-VALLEY CITIES VALUES STATEMENT

The Tri-Valley Cities of Dublin, Livermore, Pleasanton, San Ramon, and the Town of Danville value regional leadership, innovation, collaboration, and problem solving to maintain and improve the quality of life for Tri-Valley residents, provide a vibrant climate for businesses, and enable continued opportunities for public and private investment within the region.

Each City and Town provides a unique perspective on how to meet the needs of their residents and businesses. The Cities and Town agree to respect the individuality of each community and are committed to open and honest communication with a goal of building consensus and a united approach to advocacy for solutions that will serve the residents and businesses of the Tri-Valley.

TRI-VALLEY CITIES LEGISLATIVE FRAMEWORK

The Tri-Valley Cities Legislative Framework seeks to inform all levels of governmental interaction (e.g., federal, state, regional, local) regarding legislation, policies, and programs that have a direct impact on the region. The TVC has defined Legislative Focus Areas which have an overarching objective to retain and promote local control and decision-making as it relates to the implementation of laws and regulations and to have the ability to integrate them in a manner that meets the unique needs of each community. The TVC will advocate together to achieve outcomes benefiting the region in each of these Focus Areas.

Transportation and Infrastructure

Residents of the Tri-Valley region are subject to some of the heaviest commutes in the Bay Area and are impacted by the heavy flow of traffic along the region's freeways, which often spills over onto the local surface streets as commuters pursue alternatives to their commute through the Tri-Valley. A key objective of the region is to reduce congestion on the region's freeways, and to increase mobility of goods and people through the Tri-Valley with continued financial investment in transportation infrastructure: developing alternative modes of transportation, modernization of transportation corridors, and creation, modernization, and expansion of rail systems. The TVC also seeks to partner on other significant non-transportation infrastructure projects, especially those with regional and multi-regional benefits.

Climate, Environment, and Health

The TVC seeks to work collaboratively with federal, state, and regional partners to address the new landscape of year-round wildfires, air quality, public safety power shutoffs, water quality (including PFAS/PFOS contaminants) and supply issues, as well as waste and recycling mandates. The TVC will advocate for increasing financial and technical support in these areas, as well as for investment in key infrastructure at all levels of government.

Public Safety
The TVC prides itself on providing the highest quality of life for its residents, businesses, workers, and visitors alike – a critical part of which is ensuring the basic right to safety, without fear of harm to oneself or one's property. As such, the coalition will advocate for reasonable public safety reforms, especially with regard to retail theft, burglary, and assault, all while maintaining a lens of equity.

Economic Development
The Tri-Valley region is an innovation hub that spurs job growth, sustains a healthy economy, and provides a high quality of life for residents and business. Key objectives are developing a healthy workforce; and supporting innovation, capacity building, economic stimulus, and growth in the region.

Affordable Housing and Homelessness
The TVC supports balanced solutions which consider housing, jobs, and transportation together and seeks to support, promote, protect, and increase affordability in the region's housing stock. Key objectives are to work with federal, state, and regional partners to provide funding for affordable housing through a variety of programs and options and to work to address barriers to building housing at Very Low, Low, and Moderate income levels. TVC also remains committed to mitigating and eliminating homelessness, including working with partners at all levels of government to address the root causes of housing insecurity and homelessness.

Mental Health
The TVC recognizes that social services are vital to supporting residents and providing crucial safety net services in our region. While the TVC cities do not provide direct delivery of social services, the Cities seek to work together to support local non-profits and organizations that do provide these services, and advocate together for these vital resources and services from all levels of government. Mental health support is a growing need in our region, and the TVC seeks to advocate for the resources to meet the needs of all our residents.

Fiscal Sustainability
Fiscal Sustainability is an important role for all levels of government. The TVC seeks to advocate against the imposition of unfunded mandates and the removal of funding streams from local governments.

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION ADOPTING THE 2024 STATE AND FEDERAL LEGISLATIVE PLATFORM FOR THE CITY OF LIVERMORE

The proposed 2024 City of Livermore State and Federal Legislative Platform ("2024 Platform") will allow the City of Livermore ("City") to quickly respond in support of or in opposition to legislative issues by establishing positions that guide staff's response to legislative bills and their communications with legislators. This is especially important when responding to time-sensitive situations affecting the Livermore community.

The City Council first adopted a formal legislative platform in 2013, and it has adopted an update each year since then. In 2015, the City Council expanded the platform to also provide a guide for federal bill tracking and action.

The 2024 Platform proposes City positions in several legislative categories. The proposed positions and categories align with community priorities, values, and policy documents. The 2024 Platform also reflects adjustments based on evolving City needs, interests, and conditions at the regional, state, and federal levels.

The 2024 Platform legislative categories are:

1. Community-Focused Governance
2. Fiscal Stability
3. Affordable Housing and Homelessness
4. Planning and Sustainability
5. Building Safety
6. Infrastructure
7. Job Creation and Economic Development
8. Libraries
9. Public Safety and Emergency Management
10. Science, Technology, and Innovation
11. Transportation and Parking
12. Water

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore that it hereby adopts the 2024 City of Livermore State and Federal Legislative Platform, attached hereto as Exhibit A.

On motion of Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted on March 25, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

ATTEST:

_____
Deborah L. Elam
Acting City Clerk

APPROVED AS TO FORM:

/s/ Jason R. Alcala
Jason R. Alcala
City Attorney

Exhibit A – City of Livermore 2024 State and Federal Legislative Platform

City of Livermore
2024 State and Federal Legislative Platform

(DRAFT)

CITY OF
LIVERMORE
CALIFORNIA

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3. **Monitor** cannabis-related legislation.

4. **Oppose** legislation that would prohibit or limit local governments' ability to contract out for services.

5. **Support** legislation that updates both the Brown Act and Public Records Act regarding electronic records and activities that support local decision-making without significant fiscal impact and new regulations that require staff resources.

6. **Oppose** legislation that requires or expands state involvement in City financial audits, fiscal monitoring, general oversight, or assistance by the State Treasurer, State Controller, or other state agencies.

7. **Support** a wording change in the Communications Act of 1934 that removes the distinction between "capital" and "operating" funds in order to provide more local control for community television stations in the use of their public, educational and government (PEG) channel fees with no rise in taxes or a reduction in revenue to the cable industry.

Fiscal Stability

Fiscal stability and financial independence are necessary to provide desired services and programs for residents and local businesses. City Council policy decisions direct staff to ensure the City's long-term financial stability. Unexpected diversion of local funds by the state or federal government erodes the ability of a city to plan and budget for short-and-long term service needs.

1. **Oppose** legislation that imposes unfunded or inadequate state or federal mandates.

2. **Support** legislation that updates the tax structure to enhance local government revenues that have declined due to the expansion of e-commerce, increased

consumption of services rather than durable goods, and innovations in technology.

3. **Oppose** legislation that reduces local government's ability to levy fees.

4. **Monitor** legislation regarding new fees or other revenue-enhancements.

5. **Oppose** legislation that reduces or eliminates payments to cities for use of property and rights-of-way for telecommunications.

6. **Support** legislation that provides sustainable and secure public pensions and other post-retirement benefits to ensure responsive and affordable public services.

7. **Support** legislation that streamlines the Workers' Compensation system.

8. **Oppose** legislation that would remove the federal tax exemption for municipal bonds.

Affordable Housing and Homelessness

The availability of a suitable living environment is essential to quality-of-life. It is important to support adequate and affordable housing opportunities and housing-related service needs.

1. **Support** regional solutions that balance housing, transportation/transit, and jobs together. Building housing without adequate transportation infrastructure may exacerbate, not alleviate, the affordable housing crisis.

2. **Support** legislation that protects existing affordable housing stock, including rental apartments, deed-restricted units, and mobile homes, and promotes affordable housing that includes long-term affordability agreements.

3. **Support** legislation that ensures incentives and density bonus provisions are directly linked to the level and percentage of affordable units provided for each project.

4. **Support** legislation that enables cities to develop locally appropriate plans that meet state objectives in a manner that is compatible with existing community character.

5. **Support** legislation that facilitates accessory dwelling units and encourages development of "missing-middle" housing that is compatible with suburban community character.

6. **Oppose** housing legislation that is not accompanied by funding that can support expanded transportation, transit, and infrastructure, including planning, and capital improvement programs and funding to support new school facilities.

7. **Oppose** housing legislation that results in a net loss of local funding.

8. **Support** housing legislation that promotes the development and enhancement of a diverse workforce, as long as the legislation does not create an unfunded mandate or conflict with local land use authority and financial stability.

9. **Oppose** housing legislation that unduly impacts local taxation capacity or diverts financial resources from essential local public services and infrastructure programs.

10. **Support** legislation that increases financial assistance to cities, non-profit organizations, and local partnerships to provide affordable, transitional, special needs, and emergency housing to the homeless, seniors, veterans, and people with special needs.

11. **Support** legislation that increases financial assistance to cities, non-profit organizations, and local partnerships to provide and promote self-empowerment for homeless individuals or families through counseling, job training, and other related services.

12. **Support** legislation that provides financial assistance, improved access to, and expansion of health care, mental health, and drug addiction services for low income and homeless individuals.

13. **Support** legislation that removes fair housing barriers and prevents displacement.

Planning and Sustainability

The City prioritizes comprehensive land use planning that creates complete neighborhoods, promotes a jobs/housing match, strengthens Livermore's economic and fiscal base, provides housing choice, promotes local control with public input, streamlines the permitting process, conserves wildlands, promotes environmental stewardship while reducing the City's environmental footprint, and generally improves the community's quality of life.

1. **Oppose** legislation that diminishes cities' decision-making authority over land use decisions, zoning, or permit process and timelines.

2. **Support** legislation preserving or enhancing the federal Community Development Block Grant (CDBG) program.

3. **Support** land use patterns that maintain safe neighborhoods, bolster economic prosperity, provide local jobs, preserve open space, protect the environment, and enhance overall quality of life.

4. **Oppose** state or federal efforts to further erode local government authority regarding the location or permit review of small cell wireless equipment, cellular towers, transmission sites, or other devices on public infrastructure or in the public right of way.

5. **Support** funding and incentives for smart growth and sustainable development.

6. **Support** CEQA-reform legislation that improves the cost-effective and timely delivery of projects and decreases the ability for spurious lawsuits.

7. **Support** RHNA- and APR-reform legislation that adequately provides necessary housing while reducing municipal administrative burden.

8. Support tax rebate programs, like the Williamson Act or Mills Act, to promote agriculture, open space preservation, historic preservation, and good design.

9. **Support** legislation or grant opportunities for cities that provide funding for developing or enhancing alternative vehicle fueling stations.

10. **Support** rebate programs, tax credits, and other financial incentives that encourage property owners to invest in energy efficiency and renewable energy systems, greenhouse gas-reducing technology, and alternative vehicle fueling stations in parking areas.

11. **Monitor** state and federal legislation related to climate adaptation.

12. **Support** measures that increase funding to local governments for landfill diversion programs such as food recovery, composting, and recycling.

13. **Support** Extended Producer Responsibility (EPR) legislation to encourage manufacturers to design environmentally friendly products by holding producers responsible for the costs of managing their products at end of life.

Building Safety

The City prioritizes protection of public health, safety and welfare by proper building design and construction practices.

1. **Support** legislation that increases the safety of buildings, reduces potential hazards and protects against fire and structure collapse.

2. **Support** legislation for seismic earthquake retrofits to protect individuals and structures.

3. **Support** legislation that contributes to the quality and durability of construction methods and materials

4. **Oppose** legislation to restrict number of inspections needed to verify safety of the built environment and other components.

5. **Support** measures to streamline photovoltaic and electrical vehicle charging permitting and installation.

6. **Support** legislation that contributes to the wellbeing of a community, preservation of life safety, and property maintenance.

7. **Support** legislation that promotes barrier removal and sustainable practices in the built environment.

8. **Oppose** legislation that establishes unrealistic timeliness for building project review that will potentially create an unsafe built environment.

Infrastructure

The condition of a city's infrastructure affects the community's quality-of-life. Sewer and water systems, sidewalks, and roads are subject to a wide number of regulations and must be maintained or replaced to ensure the health of the community.

1. **Support** state and federal legislation that would expand connectivity and access to digital resources.

2. **Oppose** legislation regarding infrastructure such as sidewalk repair that increases a city's unfunded infrastructure liability.

3. **Support** state and federal legislation that provides additional funding and/or preferred financing for local critical unmet infrastructure needs.

4. **Support** legislation that reduces or streamlines state and federal permitting requirements.

5. **Support** legislation that enhances the reliability of water transmission and storage through the Delta to the Tri-Valley.

6. **Support** legislation that provides new funding methods for flood control and stormwater management.

7. **Support** legislation that would acknowledge an adopted California Environmental Quality Act (CEQA) document can be substituted for a federal National Environmental Protection Agency (NEPA) document for infrastructure projects.

8. **Monitor** legislation that alters the state's agency permitting requirements and how they impact the timeliness and viability of natural resource projects planned by government agencies and special districts at the local and regional level including Fish and Game endowments.

Job Creation and Economic Development

The City encourages and supports business through strategic economic development initiatives. Fostering a strong business environment requires job creation, educational opportunities, and workforce development programs.

1. **Support** legislation that enhances or expands community and economic development tools and funding to address development and revitalization needs.

2. **Support** legislation or grants that focus on downtown development.

3. **Support** legislation that promotes and funds workforce development and re-training efforts focused on high-skilled jobs required by emerging industries.

4. **Support** legislation that encourages entrepreneurship, facilitates resource-sharing models, or otherwise reduces barriers to entry for small business.

5. **Support** legislation that provides insurance or loan guarantees for small business loans during recessionary periods.

6. **Support** legislation or grants that focus on walkable, transit oriented, and complete districts with access to jobs and services.

Libraries

The Livermore Public Library connects people with information and education, and inspires experiences that support lifelong learning, personal growth, and enhanced quality of life. With strong community support, the Library offers programs, materials, materials, and services most valued by residents.

1. **Support** legislation that increases financial assistance to cities to fund and promote local library programs and literacy services.

2. **Support** legislation that seeks to close the digital divide through funding local library efforts to provide broadband internet and technology through devices such as hotspots, computers, and tablets, for community members to access.

3. **Support** legislation and funding efforts relating to early literacy, school readiness, adult literacy, career development, vocational support, and assistance to vulnerable and under-served populations.

4. **Oppose** censorship and efforts to limit the public's intellectual freedom and access to information and resources.

5. **Support** the enhancement of inclusivity, efforts to offer open and unfettered access to information, the exchange of ideas, and the welcoming of all people to express themselves regardless of their politics or beliefs.

6. **Support** legislation that fosters growth during the transformation of libraries and library services in a dynamic and increasingly global digital information environment.

7. **Support** legislation that protects the privacy of patrons and their associated library records and data.

8. **Support** legislation that enhances equitable, diverse, and inclusive initiatives and opportunities.

Public Safety and Emergency Management

Effective public safety significantly enhances a community's quality-of-life. Maintaining a strong safety presence requires ongoing local, regional, state, and federal support.

1. **Support** legislation and grants that fund police and fire equipment upgrades, training, and capital improvements.

2. **Support** legislation that promotes and funds emergency management and recovery efforts.

3. **Support** legislation that maintains and increases grant funding for the Community Oriented Police Services (COPS) hiring program.

4. **Monitor** legislation pertaining to unmanned aircrafts (drones) and Federal Aviation Administration regulations.

5. **Support** legislation to increase penalty for prohibited persons in possession of firearms and use of firearms in the commission of a crime.

6. **Support** legislation that penalizes individuals who engage in drug and/or distracted driving activities.

7. **Support** legislative efforts to address the negative impacts of Proposition 47 (Reduced Penalties for Some Crimes, 2014) and Proposition 57 (Parole for Non-Violent Criminals and Juvenile Court Trial Requirements Initiative, 2016) and provide local law enforcement with tools to reduce criminal activity.

8. **Support** legislation that would provide funding and increase access to mental health care, response to mental health related calls for service, and drug/ alcohol treatment programs.

Science, Technology, and Innovation

As the only City in the United States with two national laboratories, science, technology, and innovation play an important role in the Livermore economy, workforce, and community values. Additionally, the City partnership with the labs and i-GATE fosters innovation, job creation, and economic development opportunities.

1. **Support** legislation that advances or encourages innovation, entrepreneurship, start-ups, small business opportunities, and/or workforce development.

2. **Support** legislation that encourages the expansion of STEM (Science, Technology, Engineering, and Mathematics) programs in K-12, higher education, libraries, and community-based organizations.

3. **Support** legislation that encourages and supports the transfer of technology from the national laboratories.

4. **Support** legislation that provides competitive grants, state partnerships, or other resources to encourage innovation and the science, technology, and innovation economies.

5. **Support** legislation that improves the abilities of the federal laboratories to update or expand their infrastructure.

Transportation and Parking

Regional and local transportation play a key role in a community's economic vitality and quality-of-life.

1. **Support** legislation that reduces congestion along Tri-Valley area freeways or reduces truck traffic along I-580 through roadway or rail improvements.

2. **Support** legislation that enhances the ability of local agencies to finance local transportation programs and facilities.

3. **Support** legislation that facilitates connectivity between major regional rail/transit systems.

4. **Support** legislation that provides incentives for rail and multimodal transit stations and transit-oriented development projects.

5. **Oppose** legislation mandating "one-size-fits-all" parking space requirements for future housing, entertainment, or retail developments or impinging on how parking spaces can be used.

6. **Support** legislation that provides incentives for shared public/private partnerships.

7. **Monitor** legislation that defines "high quality transit" for purposes of transit-oriented development as anything with service headways above hourly. Review on case-by-case basis to determine any impacts and/or benefits.

8. **Support** legislation to encourage the sale of unleaded fuel and assistance to pilots for Supplemental Type Certificate acquisition for non- American Society for Testing and Materials unleaded fuels at airports nationwide.

Water

Water, both quantity and quality, is essential to residential quality-of-life as well as agricultural and economic vitality and growth.

1. **Oppose** legislation that imposes a state tax or fee on customers of a public water system for drinking water.

2. **Monitor** legislation developing new water conveyance systems such as peripheral canals or tunnels (as mentioned in the proposed Bay Delta

Conservation Plan) to deliver adequate water to the Tri-Valley and the Silicon Valley.

3. **Support** legislation that expands the production and use of recycled water or increases local control of water supplies.

4. **Oppose** legislation that expands statewide mandatory water conservation and/or rationing unless the conservation measures are triggered in response to specific local water supply conditions.

5. **Support** legislation that allows direct and indirect potable water reuse.

6. **Oppose** legislation that allows the State Water Resources Control Board or Regional Water Quality Control Board to establish more stringent, clean water objectives unless the legislation provides a demonstrated water quality benefit as well as the means for jurisdictions to achieve the objectives.

7. **Support** regulations to protect drinking water from the impacts of hydrological fracturing (hydro-fracking) related to oil and gas exploration and extraction.

8. **Support** legislation and programs that make water, sewer, and/or storm services more affordable for customers.

LIVERMORE
CALIFORNIA

CITY COUNCIL STAFF REPORT **ITEM NO. 6.1**

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Paul Spence, Assistant City Manager

SUBJECT: Hearing to consider the Housing Element Annual Progress Report, which tracks the City's progress towards implementing the Housing Element of the General Plan and meeting its Regional Housing Needs Allocation (RHNA), pursuant to Government Code Section 65400.

RECOMMENDED ACTION

Staff recommends the City Council adopt a resolution accepting the 2023 General Plan Housing Element Annual Progress Report.

SUMMARY

On March 13, 2023, the City Council adopted the updated 2023-2031 General Plan Housing Element, and it was certified by the California Housing and Community Development Department on March 24, 2023. The purpose of a Housing Element is to identify the current and projected housing needs for the City of Livermore and establish goals, policies, and programs to address those needs. The Annual Progress Report describes the City's progress completing the programs in the Housing Element and meeting its Regional Housing Needs Allocation (RHNA).

Overall permitting for residential development was lower in 2023 than previous years, likely reflecting ongoing supply chain constraints, increasing construction costs, higher mortgage rates during this period, and continued litigation preventing construction of approved projects. Residential permitting activity is likely to increase over the next few years with the construction of approved projects in the Isabel Neighborhood Specific Plan, Arroyo Vista Neighborhood Plan, and additional residential projects currently in the entitlement process.

In 2023, Livermore made progress towards its RHNA targets for the above moderate- and moderate-income categories but did not make contributions to its targets for low and very low-income categories. However, the City continues to make progress toward implementing housing programs and securing funding to increase housing opportunities for community members across the lower income levels.

Government Code Section 65400 requires the City to submit the Annual Progress Report to both the State Housing and Community Development Department and the Governor's Office of Planning and Research by April 1, 2024. Government Code Section 65400 also requires that City Council consider the report and allow public comment. If City Council accepts the report, staff will file it with the State prior to the April 1, 2024, deadline.

DISCUSSION

Background

In March 2010, the California Department of Housing and Community Development (HCD) adopted Housing Element regulations that specify for cities and counties how to complete annual reports on Housing Element progress. Since 2010, the State has passed extensive housing legislation due to concerns about the lack of housing production and housing affordability. Included in that legislation are expanded reporting requirements for Annual Progress Reports (APRs). APRs require local jurisdictions to report the following information:

- Building permits issued for housing units by income level to show progress meeting RHNA targets.
- Progress implementing Housing Element programs to maintain, improve, and develop housing opportunities for all income levels.
- Housing development applications submitted.
- Housing units receiving a planning entitlement.
- Housing units receiving a certificate of occupancy or other form of readiness (such as a final building permit inspection).
- Housing units proposed, approved, or constructed pursuant to the streamlining provisions in Senate Bill 6, Senate Bill 35 or Assembly Bill 2011.
- Housing units constructed, and lot splits approved pursuant to Senate Bill 9.
- Housing units constructed in conjunction with a commercial development bonus.
- Housing units rehabilitated, preserved, or acquired for alternative adequate sites.
- Above moderate-income units converted to moderate income units.
- List of locally owned lands included in the Housing Element Sites Inventory that have been sold, leased, or otherwise disposed of.
- List of sites identified as surplus publicly owned land.
- Student housing units approved for lower income students for which a density bonus was granted.
- Disclosure of local tenant preference policy, if established.
- Status of projects that received Local Early Action Planning (LEAP) funding.

In addition to being required by State law, compliance with the filing requirement is a criterion of eligibility for several regional and State grants. For example, the One Bay Area Grant (OBAG) competitive grant program administered by the Alameda County Transportation Commission using regional funds requires on-time filing of the APR (by April 1) for eligibility. In the past, the City has received other grants from HCD for first-time homebuyer assistance (Cal Home), affordable housing development (Local Housing Trust), and other park and public amenity projects predicated on timely submittal of the APR. Filing the APR will sustain the City's eligibility for these grant programs and others in the future.

City Council is required to review and accept the APR before staff files it with the State Housing and Community Development Department and the Governor's Office of Planning and Research by the April 1 deadline. The 2023 APR is included as Exhibit A to the Resolution and includes tables that show all the

required information listed above, consistent with State legislation.

2023-2031 Housing Element Update

To comply with State law, the City's General Plan Housing Element must be updated every eight years to ensure the City's policies and programs can accommodate estimated housing growth needs identified in the Association of Bay Area Government's (ABAG) Regional Housing Needs Allocation (RHNA). On March 13, 2023, the City Council adopted the 2023-2031 General Plan Housing Element to demonstrate its ability to accommodate housing needs in Livermore and it was certified by the California Housing and Community Development Department on March 24, 2023.

Regional Housing Needs Allocation

The RHNA refers to the fair share of regional housing that the City needs to accommodate during the Housing Element planning period. The City is not required to construct housing to meet the RHNA. Rather, Housing Element legislation requires cities to demonstrate the availability of land with zoning appropriate to accommodate future additional residential units. In addition to a residential land inventory, the Housing Element also includes programs to develop, preserve, and improve the housing stock.

The City's RHNA for the 2023-2031 Housing Element cycle is 4,570 dwelling units, distributed among four income categories (1,317 very low, 758 low, 696 moderate, and 1,799 above moderate). The affordable housing income limits that define above moderate, moderate, low and very low-income are established for each county and adopted annually by Council resolution (Attachment 1).

Consistent with the RHNA for most Bay Area cities, Livermore's overall housing need is greatest in the very low-income (29 percent of RHNA) and above moderate-income (39 percent of RHNA) categories of the RHNA. Livermore's RHNA also reflects a need for workforce and senior housing in the low- and moderate- income categories, which represents 17 percent and 15 percent of the RHNA, respectively.

Building Affordable Housing in Livermore

State Housing Element Law allows jurisdictions to use density as a proxy for affordability when demonstrating the availability of residentially zoned land for low-income RHNA categories; however, HCD issued guidance starting with the 2017 APR noting that affordability of built units may not rely on density and must be based on actual sales/rental prices. As such, higher density product types no longer qualify as affordable based on density alone.

The City's inclusionary housing ordinance requires new residential projects to include affordable units by contract (i.e., deed-restricted) with the City as follows:

- For-sale units: 15 percent of all for-sale housing units built in the City must be affordable to low and moderate-income households. Of the 15 percent, a minimum of 7.5 percent of the units must be for low-income households.

- Rental units: 15 percent of all rental housing units built in the City must be affordable to very low and low-income households. Of the 15 percent, a minimum of 7.5 percent of the units must be for very-low-income households.

- 10 percent of for-sale housing units built in the Downtown Specific Plan shall be affordable to low-income households.

- 20 percent of both for-sale and rental units built in the Isabel Neighborhood Specific Plan shall be affordable housing as follows:
    - For-sale units: The affordable housing units for for-sale residential developments must be sold to median- and moderate-income households. Of the total number of dwelling units (20 percent) set aside, at least five percent shall be reserved for sale to median-income households with the balance set aside for moderate-income households.
    - Rental units: The affordable housing units for rental residential developments must be designated or reserved for rental to very-low-income, and low-income, median-income, and moderate-income households. Of the total number of dwelling units (20 percent) set aside, at least six percent shall be reserved for rental to very-low-income households, at least seven percent shall be reserved for low-income households, and at least four percent shall be reserved for median-income households, with the balance set aside for moderate-income households.

- Inclusionary units are required to be the same quality as market rate units and evenly distributed throughout each residential project.

The City Council can approve alternative means of meeting the inclusionary housing requirements above (e.g., in-lieu fees, donation of land, etc.). The City uses in-lieu fees for the construction of affordable housing, such as the Vineyard 2.0 and Avance projects. Due to high sales and rental costs, all low and very low- income units produced in the city require a subsidy. The City does not have sufficient affordable housing funds to subsidize enough units to reach the RHNA goals in these categories. Therefore, the inclusionary housing requirement on market-rate development is critical to meeting the city's affordable housing targets.

State and local policies aside, attached unit types tend to cost less than single-family detached units and are more attainable to first-time homebuyers and other households with less ability to afford large down payments. Rental units and accessory dwelling units offer options for households that cannot afford to buy. These housing types are important for diversifying housing choices in Livermore.

2023 Housing Permit Activity

Attachment 2 includes summary tables from the Annual Progress Report showing housing permit activity in 2023. The City issued building permits for 70 units, which is lower than previous years. The reduced activity likely reflects the current market conditions, ongoing supply chain constraints, increasing construction costs, higher mortgage rates during this period, and continued litigation preventing construction of approved projects like Eden Housing and Garaventa Hills. Most of the permits issued in 2023 were for accessory dwelling units (approximately 70 percent). Multi-family units and single-family detached units were approximately 17 and 13 percent of the total, respectively.

Staff anticipates building permit activity to increase over the next several years due to construction of recently approved projects in the Arroyo Vista Neighborhood Plan and Isabel Neighborhood Specific Plan, which allows for over 435 and 4,000 new residential units at build-out, respectively. Grading activities commenced for two of the approved projects in the Isabel Neighborhood Specific Plan in 2023, with the projects yielding over 400 units upon completion. In addition, several new development

applications submitted in 2023 are currently under entitlement review and collectively propose over 1,800 new housing units at a range of densities and affordability levels.

Progress Meeting RHNA for the 2023-2031 Cycle

Table B of the Annual Progress Report (Attachment 3) shows the City's progress meeting its RHNA numbers in 2023, which is the first year of the planning period for the sixth RHNA cycle. RHNA progress is determined through building permits issued by income level. The City made progress towards its RHNA targets for the above moderate and moderate-income categories. The City did not permit any residential units for the low and very low-income categories during 2023 and, therefore, did not contribute to RHNA targets in those categories.

Progress Implementing Housing Programs

In addition to planning for and entitling housing at a range of densities and affordability levels, the City implements a variety of housing programs to address affordability challenges in Livermore. Table D of the Annual Progress Report lists the goals, policies, and programs in the Housing Element and the status towards implementing and completing these programs. Many of the Housing Element programs outlined in Table D are ongoing as the updated Housing Element was adopted in early 2023. Below are accomplishments in 2023 that highlight implementation of the City’s 2023-2031 Housing Element.

- The City continued to make progress on the General Plan Update, including a comprehensive evaluation and community engagement campaign around the land use alternatives previously approved by the City Council. City staff presented to, and met with, over 1,100 people from October to December 2023 to evaluate and compare the alternatives. The feedback received from these efforts will inform the selection of a Preferred Land Use Scenario for further study.

- The City initiated the first phase of a comprehensive Development Code Update, last updated in 2010. The comprehensive Development Code Update will incorporate amendments to respond to new state housing laws and create objective design standards to streamline design review and facilitate development for a variety of housing types, densities, and income levels.

- In December 2023, construction was completed for the Vineyard 2.0. The project provides 24 units, including 23 supportive housing units for extremely low, very low-income, and formerly homeless households. In addition, the project offers approximately 10,000 square feet of commercial space for a resource center serving persons who are homeless and a commercial food kitchen benefiting food insecure people in Livermore.

- In 2023, the City executed Low Income Housing Agreements with developers of three new residential for-sale projects, securing 92 affordable units for low and moderate-income buyers in the future.

- The City provided grants and supported programs that expand the supply of housing units for individuals with disabilities through partnerships with MidPen, Tri-Valley REACH, and various community non-profit organizations. In May 2023, MidPen welcomed new residents at the official opening for Avance, consisting of 43 affordable units of services-enriched housing for persons with developmental disabilities.

- With grant funds awarded to the City from the State of California's Family Homelessness Challenge Grant program, two homeless or at-risk of homelessness families in the Livermore Unified School District have been placed in units and are receiving Intensive Case Management Services.

CEQA DETERMINATION

Accepting the 2023 Annual Progress Report is not a project as defined by the California Environmental Quality Action (CEQA) Guidelines Section 15378 because it will not cause a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment.

FISCAL AND ADMINISTRATIVE IMPACTS

There are no direct fiscal impacts resulting from preparation of the 2023 Annual Progress Report. City Council acceptance of the report and staff submittal of the report to the State will retain the City's eligibility for competitive grant funding for transportation projects and other grants that may be available from HCD in 2024.

COMMUNITY PILLAR

1: A Safe Community that Thrives

GOAL CATEGORY

7: Expand and preserve the supply of affordable housing opportunities

GUIDING DOCUMENT

2023-2031 Housing Element

ATTACHMENTS

1. 2024 Affordable For-Sale Prices and Rental Rates
2. 2023 Building Permit Activity Summary
3. 2023-2031 RHNA Progress
4. Resolution
5. Exhibit A - 2023 Annual Progress Report

Prepared by: Shannon Pagan
Assistant Planner

Approved by:

Marianna Marysheva
City Manager

Fiscal Review by:

Tina Olson
Administrative Services Director

LIVERMORE CALIFORNIA

City of Livermore
Affordable For-Sale Prices and Rental Rates

ATTACHMENT 1

For-Sale Housing*

		Low-Income (80%)		Median-Income (100%)		Moderate-Income (120%)	
No. Bedrooms	Household Size	Maximum Income	Maximum Purchase Price	Maximum Income	Maximum Purchase Price	Maximum Income	Maximum Purchase Price
Studio	1	$78,550	$210,629	$103,550	$295,625	$124,250	$366,001
1	2	$89,750	$248,707	$118,300	$345,772	$142,000	$426,347
2	3	$100,950	$286,785	$133,100	$396,089	$159,750	$486,694
3	4	$112,150	$324,863	$147,900	$446,406	$177,500	$547,041
4	5	$121,150	$355,461	$159,750	$489,233	$191,700	$595,318

Effective January 8, 2024

Rental Housing*

		Ext. Low-Income (30%)		Very-Low Income (50%)		Lower-Income (60%)		Low-Income (80%)		Median-Income (100%)		Moderate-Income (120%)	
No. Bed-rooms	Size House-hold	Maximum Income	Maximum Rent	Maximum Income	Maximum Rent	Maximum Income	Maximum Rent	Maximum Income	Maximum Rent	Maximum Income	Maximum Rent	Maximum Income	Maximum Rent
Studio	1	$31,050	$776	$51,800	$1,295	$62,160	$1,554	$78,550	$1,964	$103,550	$2,589	$124,250	$3,106
1(*)	1.5	$35,500	$888	$55,500	$1,388	$66,600	$1,665	$84,150	$2,104	$110,925	$2,773	$133,125	$3,328
1	2	$39,950	$999	$59,200	$1,480	$71,040	$1,776	$89,750	$2,244	$118,300	$2,958	$142,000	$3,550
2	3	$44,350	$1,109	$66,600	$1,665	$79,920	$1,998	$100,950	$2,524	$128,500	$3,328	$159,750	$3,994
3	4	$47,900	$1,198	$73,950	$1,849	$88,740	$2,219	$112,150	$2,804	$142,800	$3,698	$177,500	$4,438
4	5	$51,450	$1,286	$79,900	$1,998	$95,880	$2,397	$121,150	$3,029	$159,750	$3,994	$191,700	$4,793

Effective January 8, 2024

NOTES: These limits are based on income data from the California Department of Housing and Community Development (HCD) for 2023. The Affordable Sales Prices are effective for the 2024 Affordable Homeownership Program year and thereafter until updated by City Council. The 2023 Area Median Income for a 4-person household of $147,900 published by State HCD is derived from the U.S. Department of Housing and Urban Development for Alameda County (Oakland-Fremont Metro Region) for the Section 8 Program.

(*) Low Income Housing Tax Credit (LIHTC) Household size

Sales Prices: assume a 6.75% interest rate, 30-year mortgage, and housing payments (PITI) which do not exceed 30% of the household's monthly income.

The Rental Housing limits are effective upon adoption by City Council and thereafter until updated by City Council. Rental affordability based on 30% of the household's monthly income and do not include tenant utility allowances. Utility allowances should be deducted from the maximum rents based on the Livermore Housing Authority's utility allowance schedule for the Section 8 Program.

Date Adopted by Livermore City Council: January 8, 2024

Jurisdiction	Livermore	
Reporting Year	2023	(Jan. 1 - Dec. 31)
Housing Element Planning Period	6th Cycle	01/31/2023 - 01/31/2031

Building Permits Issued by Affordability Summary		
Income Level		Current Year
Very Low	Deed Restricted	0
	Non-Deed Restricted	0
Low	Deed Restricted	0
	Non-Deed Restricted	0
Moderate	Deed Restricted	1
	Non-Deed Restricted	48
Above Moderate		21
Total Units		**70**

Note: Units serving extremely low-income households are included in the very low-income permitted units totals

Units by Structure Type	Entitled	Permitted	Completed
Single-family Attached	0	0	0
Single-family Detached	4	9	15
2 to 4 units per structure	0	0	0
5+ units per structure	172	12	228
Accessory Dwelling Unit	0	49	44
Mobile/Manufactured Home	0	0	0
Total	**176**	**70**	**287**

Infill Housing Developments and Infill Units Permitted	# of Projects	Units
Indicated as Infill	1	12
Not Indicated as Infill	58	58

Housing Applications Summary	
Total Housing Applications Submitted:	57
Number of Proposed Units in All Applications Received:	1,841
Total Housing Units Approved:	45
Total Housing Units Disapproved:	0

Use of SB 35 Streamlining Provisions - Applications	
Number of SB 35 Streamlining Applications	0
Number of SB 35 Streamlining Applications Approved	0

Units Constructed - SB 35 Streamlining Permits			
Income	Rental	Ownership	Total
Very Low	0	0	0
Low	0	0	0
Moderate	0	0	0
Above Moderate	0	0	0
Total	**0**	**0**	**0**

Streamlining Provisions Used - Permitted Units	# of Projects	Units
SB 9 (2021) - Duplex in SF Zone	0	0
SB 9 (2021) - Residential Lot Split	0	0
AB 2011 (2022)	0	0
SB 6 (2022)	0	0
SB 35 (2017)	0	0

Ministerial and Discretionary Applications	# of Applications	Units
Ministerial	53	53
Discretionary	4	1788

Density Bonus Applications and Units Permitted	
Number of Applications Submitted Requesting a Density Bonus	4
Number of Units in Applications Submitted Requesting a Density Bonus	1788
Number of Projects Permitted with a Density Bonus	0
Number of Units in Projects Permitted with a Density Bonus	0

Housing Element Programs Implemented and Sites Rezoned	Count
Programs Implemented	121
Sites Rezoned to Accommodate the RHNA	0

Jurisdiction	Livermore	
Reporting Year	2023	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	01/31/2023 - 01/31/2031

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

This table is auto-populated once you enter your jurisdiction name and current year data. Past year information comes from previous APRs.

Please contact HCD if your data is different than the material supplied here

Table B
Regional Housing Needs Allocation Progress
Permitted Units Issued by Affordability

Income Level		1 RHNA Allocation by Income Level	Projection Period - 06/30/2022-01/30/2023	2 2023	2024	2025	2026	2027	2028	2029	2030	2031	3 Total Units to Date (all years)	4 Total Remaining RHNA by Income Level
Very Low	Deed Restricted	1,317	-	-	-	-	-	-	-	-	-	-	-	1,317
	Non-Deed Restricted		-	-	-	-	-	-	-	-	-	-		
Low	Deed Restricted	758	-	-	-	-	-	-	-	-	-	-	-	758
	Non-Deed Restricted		-	-	-	-	-	-	-	-	-	-		
Moderate	Deed Restricted	696	-	1	-	-	-	-	-	-	-	-	80	616
	Non-Deed Restricted		34	45	-	-	-	-	-	-	-	-		
Above Moderate		1,799	21	21	-	-	-	-	-	-	-	-	42	1,757
Total RHNA		4,570												
Total Units			55	67	-	-	-	-	-	-	-	-	122	4,448

Progress toward extremely low-income housing need, as determined pursuant to Government Code 65583(a)(1).

	5 Extremely low-Income Need		2023	2024	2025	2026	2027	2028	2029	2030	2031	6 Total Units to Date	7 Total Units Remaining
Extremely Low-Income Units*	659		-	-	-	-	-	-	-	-	-	-	659

*Extremely low-income houisng need determined pursuant to Government Code 65583(a)(1). Value in Section 5 is default value, assumed to be half of the very low-income RHNA. May be overwritten.

Note: units serving extremely low-income households are included in the very low-income RHNA progress and must be reported as very low-income units in section 7 of Table A2. They must also be reported in the extremely low-income category (section 13) in Table A2 to be counted as progress toward meeting the extremely low-income housing need determined pursuant to Government Code 65583(a)(1).

Please note: For the last year of the 5th cycle, Table B will only include units that were permitted during the portion of the year that was in the 5th cycle. For the first year of the 6th cycle, Table B will only include units that were permitted since the start of the planning period. Projection Period units are in a separate column.

Please note: The APR form can only display data for one planning period. To view progress for a different planning period, you may login to HCD's online APR system, or contact HCD staff at apr@hcd.ca.gov.

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION ACCEPTING THE 2023 GENERAL PLAN HOUSING ELEMENT ANNUAL PROGRESS REPORT

The California Department of Housing and Community Development's ("HCD") Housing Element regulations require cities and counties to complete annual reports on housing element progress pursuant to Government Code Section 65400.

Housing Element Annual Progress Reports must include the following information: (1) annual building permits issued by income level to show progress meeting Regional Housing Need Allocation ("RHNA") targets; (2) progress implementing Housing Element programs to maintain, improve, and develop housing opportunities for all income levels; (3) annual housing development applications submitted; (4) annual housing units receiving a planning entitlement; (5) annual housing units receiving a certificate of occupancy or other form of readiness; (6) annual housing units proposed, approved, or constructed pursuant to Senate Bill 6, Senate Bill B 35, or Assembly Bill 2011; (7) housing units constructed and lot splits approved pursuant to Senate Bill 9; (8) housing units constructed in conjunction with a commercial development bonus; (9) housing units rehabilitated, preserved, or acquired for alternative adequate sites; (10) above moderate-income units converted to moderate income units; (11) list of locally owned lands included in the Housing Element sites inventory that have been sold, leased, or otherwise disposed of; (12) list of sites identified as surplus publicly owned land; (13) student housing units approved for lower income students for which a density bonus was granted; (14) disclosure of local tenant preference policy, if established; and (15) status of projects that received Local Early Action Planning funding.

In addition to being required by State law, the City of Livermore ("City") must file Annual Progress Reports to maintain eligibility for regional and State grants. On-time filing of these reports ensures eligibility for competitive grant programs, such as the One Bay Area Grant competitive grant program administered by the Alameda County Transportation Commission. In the past, the City has received other grants from HCD for first-time homebuyer assistance such as Cal Home and the Local Housing Trust, as well as other park and public amenity projects predicated on timely submittal of the Annual Progress Report.

Accepting the 2023 Annual Progress Report is not a project as defined by the California Environmental Quality Action Guidelines Section 15378 because it will not cause a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment.

On March 25, 2024, the City Council held a duly noticed public hearing to consider the 2023 Housing Element Annual Progress Report, staff recommendations, and all public comments and testimony.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore, that it hereby accepts the 2023 Housing Element Annual Progress Report, attached hereto as Exhibit A.

BE IT FURTHER RESOLVED by the City Council of the City of Livermore that it hereby directs staff to file the Annual Progress Report with California Department of Housing and Community Development and the Governor's Office of Planning and Research by April 1, 2024, per Government Code Section 65400.

On motion of Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted on March 25, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

ATTEST:

_____

Deborah L. Elam
Acting City Clerk

APPROVED AS TO FORM:

/s/ Kimberly D. Cilley

Kimberly D. Cilley
Senior Assistant City Attorney

Exhibit A - 2023 Housing Element Annual Progress Report

Jurisdiction	Livermore	
Reporting Year	2023	(Jan. 1 - Dec. 31)
Housing Element Planning Period	6th Cycle	01/31/2023 - 01/31/2031

Building Permits Issued by Affordability Summary		
Income Level		**Current Year**
Very Low	Deed Restricted	0
	Non-Deed Restricted	0
Low	Deed Restricted	0
	Non-Deed Restricted	0
Moderate	Deed Restricted	1
	Non-Deed Restricted	48
Above Moderate		21
Total Units		**70**

Note: Units serving extremely low-income households are included in the very low-income permitted units totals

Units by Structure Type	**Entitled**	**Permitted**	**Completed**
Single-family Attached	0	0	0
Single-family Detached	4	9	15
2 to 4 units per structure	0	0	0
5+ units per structure	172	12	228
Accessory Dwelling Unit	0	49	44
Mobile/Manufactured Home	0	0	0
Total	**176**	**70**	**287**

Infill Housing Developments and Infill Units Permitted	**# of Projects**	**Units**
Indicated as Infill	1	12
Not Indicated as Infill	58	58

Housing Applications Summary	
Total Housing Applications Submitted:	57
Number of Proposed Units in All Applications Received:	1,841
Total Housing Units Approved:	45
Total Housing Units Disapproved:	0

Use of SB 35 Streamlining Provisions - Applications	
Number of SB 35 Streamlining Applications	0
Number of SB 35 Streamlining Applications Approved	0

Units Constructed - SB 35 Streamlining Permits			
Income	**Rental**	**Ownership**	**Total**
Very Low	0	0	0
Low	0	0	0
Moderate	0	0	0
Above Moderate	0	0	0
Total	**0**	**0**	**0**

Streamlining Provisions Used - Permitted Units	# of Projects	Units
SB 9 (2021) - Duplex in SF Zone	0	0
SB 9 (2021) - Residential Lot Split	0	0
AB 2011 (2022)	0	0
SB 6 (2022)	0	0
SB 35 (2017)	0	0

Ministerial and Discretionary Applications	# of Applications	Units
Ministerial	53	53
Discretionary	4	1788

Density Bonus Applications and Units Permitted	
Number of Applications Submitted Requesting a Density Bonus	4
Number of Units in Applications Submitted Requesting a Density Bonus	1788
Number of Projects Permitted with a Density Bonus	0
Number of Units in Projects Permitted with a Density Bonus	0

Housing Element Programs Implemented and Sites Rezoned	Count
Programs Implemented	121
Sites Rezoned to Accommodate the RHNA	0

Jurisdiction	Livermore	
Reporting Year	2023	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	01/31/2023 - 01/31/2031

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Note: "+" indicates an optional field
Cells in grey contain auto-calculation formulas

Table A
Housing Development Applications Submitted

Project Identifier					Unit Types		Date Application Submitted	Proposed Units - Affordability by Household Incomes								Total Approved Units by Project	Total Disapproved Units by Project	Streamlining	Density Bonus Law Applications		Application Status	Project Type	Notes
1					2	3	4	5							6	7	8	9	10		11	12	13
Prior APN+	Current APN	Street Address	Project Name+	Local Jurisdiction Tracking ID	Unit Category (SFA,SFD,2 to 4,5+,ADU,MH)	Tenure R=Renter O=Owner	Date Application Submitted+ (see instructions)	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low-Income Deed Restricted	Low-Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Total PROPOSED Units by Project	Total APPROVED Units by project	Total DISAPPROVED Units by Project	Please select streamlining provision/s the application was submitted pursuant to.	Did the housing development application seek incentives or concessions pursuant to Government Code section 65915?	Were incentives or concessions reqested pursuant to Government Code section 65915 approved?	Please indicate the status of the application.	Is the project considered a ministerial project or discretionary project?	Notes+
Summary Row: Start Data Entry Below								0	0	0	0	167	51	1623	1841	45	0						
	098 023000801	1923 Linden St		ADU220081	ADU	R	1/9/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 098500302	979 Livermore Ave		ADU220082	ADU	R	1/5/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 003900700	1532 Heather Ln		ADU230001	ADU	R	1/19/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 134600501	1751 Bradford Way		ADU230002	ADU	R	2/3/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 046203400	3086 Bertoli Dr		ADU230003	ADU	R	2/16/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	098 040100400	420 Colusa Wy		ADU230004	ADU	R	2/23/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 135103100	658 Shadow Mist Ct		ADU230005	ADU	R	3/10/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 029901300	660 Orion Wy		ADU230006	ADU	R	3/29/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 045303200	2340 Stonebridge Rd		ADU230007	ADU	R	3/24/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	097 008916400	1179 Dublin Ave		ADU230008	ADU	R	4/11/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	097 014602800	1210 Killarney St		ADU230009	ADU	R	4/14/2023					1			1	1		NONE	No	No	Approved	Ministerial	
	099 080301600	2766 Lucca Ct		ADU230010	ADU	R	5/1/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	097 004600201	561 M St		ADU230011	ADU	R	5/2/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 072515700	2582 Merlot Ln		ADU230012	ADU	R	5/16/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 017805002	407 Summertree Dr		ADU230013	ADU	R	5/24/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	098 021601400	1855 Locust St		ADU230014	ADU	R	5/23/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	098 034906100	733 P St		ADU230015	ADU	R	6/12/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	098 020400300	845 L St		ADU230016	ADU	R	6/12/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	098 020400200	857 L St		ADU230017	ADU	R	6/12/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099B535405300	6101 Augusta Wy		ADU230018	ADU	R	6/13/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	098 029000403	1017 Ventura Ave		ADU230019	ADU	R	6/14/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	097 006400802	856 G St		ADU230021	ADU	R	6/16/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099B540600400	6476 Scenic Ave		ADU230022	ADU	R	6/27/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	097 003900700	466 N St		ADU230023	ADU	R	6/27/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099A293902300	2632 Cowan Wy		ADU230024	ADU	R	7/3/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	097 014509000	1820 De Vaca Wy		ADU230025	ADU	R	7/28/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	098 029301500	1086 Ventura Ave		ADU230026	ADU	R	8/7/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099A290901200	4935 Candy Ct		ADU230027	ADU	R	8/15/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 098500400	2856 Carmen Ave		ADU230028	ADU	R	8/16/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	098 020101203	1641 Pine St		ADU230029	ADU	R	8/21/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	097 014003100	1675 Vancouver Wy		ADU230030	ADU	R	8/21/2023					1			1	1		NONE	No	No	Approved	Ministerial	
	099 138313600	1550 Springtown Blvd		ADU230031	ADU	R	8/29/2023						1		1			NONE	No	No	Pending	Ministerial	
	099 019103600	48 Glacier Pl		ADU230032	ADU	R	9/5/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	098A041400804	482 School St		ADU230034	ADU	R	9/11/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 133802100	3981 Loch Lomand Wy		ADU230035	ADU	R	9/12/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099A292703100	5639 Moreland Wy		ADU230036	ADU	R	9/14/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 019100600	434 Yosemite Dr		ADU230037	ADU	R	10/2/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 108203527	732 Hayes Ave		ADU230038	ADU	R	10/25/2023						1		1			NONE	No	No	Pending	Ministerial	Unit 1

Jurisdiction	Livermore	
Reporting Year	2023	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	01/31/2023 - 01/31/2031

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Note: "+" indicates an optional field
Cells in grey contain auto-calculation formulas

Table A
Housing Development Applications Submitted

Project Identifier					Unit Types		Date Application Submitted	Proposed Units - Affordability by Household Incomes							Total Approved Units by Project	Total Disapproved Units by Project	Streamlining	Density Bonus Law Applications		Application Status	Project Type	Notes
1					2	3	4	5							6	7	8	9	10		11	12	13
Prior APN+	Current APN	Street Address	Project Name+	Local Jurisdiction Tracking ID	Unit Category (SFA,SFD,2 to 4,5+,ADU,MH)	Tenure R=Renter O=Owner	Date Application Submitted+ (see instructions)	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low-Income Deed Restricted	Low-Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Total PROPOSED Units by Project	Total APPROVED Units by project	Total DISAPPROVED Units by Project	Please select streamlining provision/s the application was submitted pursuant to.	Did the housing development application seek incentives or concessions pursuant to Government Code section 65915?	Were incentives or concessions reqested pursuant to Government Code section 65915 approved?	Please indicate the status of the application.	Is the project considered a ministerial project or discretionary project?	Notes+
Summary Row: Start Data Entry Below								0	0	0	0	167	51	1623	1841	45	0						
	099 108203527	732 Hayes Ave		ADU230039	ADU	R	10/25/2023						1		1			NONE	No	No	Pending	Ministerial	Unit 2
	099 026000603	165 Stanley		ADU230040	ADU	R	11/6/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 018705200	234 Swan Dr		ADU230041	ADU	R	11/13/2023						1		1			NONE	No	No	Pending	Ministerial	
	099 138605000	2937 Lucca Dr		ADU230042	ADU	R	12/4/2023						1		1			NONE	No	No	Pending	Ministerial	
	099 131201300	5132 Scenic Ave		ADU230043	ADU	R	12/13/2023						1		1			NONE	No	No	Pending	Ministerial	
	099B540401400	1435 Fox Creek Ct		ADU230044	ADU	R	12/19/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 004004000	140 Trevarno Rd		ADU230045	ADU	R	12/19/2023						1		1			NONE	No	No	Pending	Ministerial	
	099 132900100	630 Alden Ln		ADU230046	ADU	R	12/28/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 031307900	888 Laguna St		D220838	ADU	R	1/5/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	098 025100701	1949 Chestnut St		D220841	ADU	R	1/10/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099B520602500	1639 Pinehurst Ct		D230081	ADU	R	2/9/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	099 030113100	1007 Mocho St		D230146	ADU	R	3/28/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	097 003900600	486 N St		D230367	ADU	R	6/27/2023						1		1	1		NONE	No	No	Approved	Ministerial	
	097 014701100	1776 Helinki Wy		D230416	ADU	R	8/14/2023						1		1			NONE	No	No	Pending	Ministerial	
	905 001500800	2620 Collier Canyon Rd	Cornerstone	SUB22-006	5+	O	1/30/2023					109		139	248			NONE	Yes	N/A	Pending	Discretionary	Applicant submitted SB 33
	903 001004800	301 Portola Ave; 401 Protola Ave	Harridge	SUB22-008	5+	O	10/27/2023							1261	1261			NONE	Yes	N/A	Pending	Discretionary	Applicant submitted SB 33
	098A041210608	3070 Pacific Ave; 2930 Pacific Ave	Pacific and Livermore Center	SUB23-004	5+	O	7/25/2023					23		92	115			NONE	Yes	N/A	Pending	Discretionary	Applicant submitted SB 33
	099 072505300	2352 Gamay CM		D220830	SFD	O	9/27/2023						1		1	1		NONE	No	No	Approved	Ministerial	Builders Remedy
	903 001400400	Tranquility Circle	Shea 2a Aura	SUB21-007	5+	O	10/16/2023					33		131	164			NONE	Yes	No	Pending	Discretionary	Applicant submitted SB 33

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier					Unit Types		Affordability by Household Incomes - Completed Entitlement								
1					2	3	4							5	6
Prior APN+	Current APN	Street Address	Project Name+	Local Jurisdiction Tracking ID	Unit Category (SFA,SFD,2 to 4,5+,ADU,MH)	Tenure R=Renter O=Owner	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Entitlement Date Approved	# of Units issued Entitlements
Summary Row: Start Data Entry Below							0	0	0	0	0	34	142		176
	905 001000600	Triad Dr	Triad Condos	SPDR21-003	5+	O					22		90	5/9/2022	112
	903 001003000	Portola Ave	Shea Portola Ave - Apartments	SPDR21-005	5+	R	14		14		14		168	7/25/2022	210
	903 001003000	Portola Ave	Shea Portola Ave - Condos	SPDR21-005	5+	O					18		71	7/25/2022	89
	099 007604300	2394 FARNSWORTH DR		ADU200018	ADU	R									0
	098 034904800	1223 PINE ST		ADU200033	ADU	R									0
	099 068000900	3209 SARATOGA CT		ADU200040	ADU	R									0
	098 020701300	841 K ST		ADU210003	ADU	R									0
	099 028301200	1699 SARDONYX RD		ADU210010	ADU	R									0
	099 031607300	849 MAYVIEW WY		ADU210015	ADU	R									0
	099 030604100	997 DE CAEN CT		ADU210017	ADU	R									0
	099 134302200	247 VALLECITOS RD		ADU210019	ADU	R									0
	099 045304300	2356 HAMPTON RD		ADU210024	ADU	R									0
	098 034908300	1083 LOCUST ST		ADU210025	ADU	R									0
	099 019102900	189 RAINIER AV		ADU210029	ADU	R									0
	099 133613200	573 SHERIDAN CI		ADU210033	ADU	R									0
	099 110203100	4240 GUILFORD AV		ADU210041	ADU	R									0
	097 014205900	1162 INNSBRUCK ST		ADU210047	ADU	R									0
	097 007500200	1731 SIXTH ST		ADU210055	ADU	R									0
	097 013910200	1451 NAPLES WY		D200800	ADU	R									0
	097 014807500	1745 STERLING CT		D190972	SFD	O									0
	098 024000117	450 N LIVERMORE AVE	VINEYARD 2.0	CB210003	5+	R									0
	098A040301504	4308 EMORY WY		ADU210018	ADU	R									0
	097 008103004	1442 THIRD ST		ADU210022	ADU	R									0
	098 024300603	2055 PARK ST		ADU210046	ADU	R									0
	099 045102400	1130 LOMITAS AV		ADU210058	ADU	R									0
	099 029802400	2138 MARS RD		ADU210059	ADU	R									0
	099 138313600	1550 SPRINGTOWN BL		ADU210063	ADU	R									0
	099 134501600	256 WHITE FANG WY		ADU220001	ADU	R									0
	097 014200901	1740 PEARY WY		ADU220009	ADU	R									0
	099B810107600	2386 SPYGLASS HILLS RD		ADU220010	ADU	R									0
	099 136501300	1120 HANSEN RD		ADU220013	ADU	R									0
	098 038902700	969 CAYUGA DR		ADU220014	ADU	R									0
	099 046103700	2974 PICHOLINE CT		ADU220015	ADU	R									0
	099 132901700	531 LAGRANGE LN		ADU220017	ADU	R									0
	098 039110000	799 L ST		ADU220019	ADU	R									0
	098 039110000	799 L ST		ADU220020	ADU	R									0
	099B520802900	5593 OAKMONT CI		ADU220021	ADU	R									0
	099B505000802	919 CENTRAL AV		ADU220022	ADU	R									0
	099 029903000	846 SATURN WY		ADU220023	ADU	R									0
	099 029601200	749 ORION WY		ADU220024	ADU	R									0

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier					Unit Types		Affordability by Household Incomes - Completed Entitlement								
1					2	3	4							5	6
Prior APN+	Current APN	Street Address	Project Name+	Local Jurisdiction Tracking ID	Unit Category (SFA,SFD,2 to 4,5+,ADU,MH)	Tenure R=Renter O=Owner	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Entitlement Date Approved	# of Units issued Entitlements
Summary Row: Start Data Entry Below							0	0	0	0	0	34	142		176
	099 031307800	874 LAGUNA ST		ADU220025	ADU	R									0
	099 019000900	448 HUMMINGBIRD LN		ADU220027	ADU	R									0
	099 005102400	3512 FIRST ST		ADU220028	ADU	R									0
	098 032000600	617 P ST		ADU220030	ADU	R									0
	099 080300903	2602 LUCCA CT		ADU220031	ADU	R									0
	098 034906200	1572 ELM ST		ADU220033	ADU	R									0
	099 130002000	1908 PARKSIDE CT		ADU220034	ADU	R									0
	098 024700206	1666 CHESTNUT ST		ADU220035	ADU	R									0
	099 132902900	1920 ALTAIR AV		ADU220036	ADU	R									0
	098 039703700	1172 DELAWARE WY		ADU220037	ADU	R									0
	099 029503300	2498 LIVORNO CT		ADU220038	ADU	R									0
	097 007200301	980 ACACIA WY		ADU220039	ADU	R									0
	098A042401100	3895 HARVARD WY		ADU220040	ADU	R									0
	099 033002800	69 AGATE CT		ADU220042	ADU	R									0
	098 038704800	640 ORIOLE AV		ADU220043	ADU	R									0
	097 004900401	581 J ST		ADU220044	ADU	R									0
	099 033200800	280 LOUIS CT		ADU220045	ADU	R									0
	098A041401802	3428 EAST AV		ADU220049	ADU	R									0
	099 045407500	1359 CHELSEA WY		ADU220050	ADU	R									0
	097 009708200	2357 COLLEGE AV		ADU220051	ADU	R									0
	099 133805000	4001 CAMROSE AV		ADU220056	ADU	R									0
	099 045410301	2633 REGENT RD		ADU220057	ADU	R									0
	097 008102601	210 R ST		ADU220058	ADU	R									0
	099 075102500	2021 CABERNET WY		ADU220059	ADU	R									0
	099 110102400	4339 RUTGERS CT		ADU220060	ADU	R									0
	099 002800200	1019 BLUEBELL DR		ADU220062	ADU	R									0
	099 133502000	1548 MURDELL LN		ADU220064	ADU	R									0
	099 001502202	2680 WAVERLEY WY		D181381	SFD	O									0
	098 024000117	456 LIVERMORE AV	VINEYARD 2.0	D210140	5+	R									0
	097 015101102	1734 BELLA KRISTINA LN		D210836	SFD	O									0
	097 015101102	1740 BELLA KRISTINA LN		D210837	SFD	O									0
	097 015101102	1746 BELLA KRISTINA LN		D210838	SFD	O									0
	099 134501600	256 WHITE FANG WY		D220006	ADU	R									0
	098 030402100	1460 OLIVINA AV		D220022	ADU	R									0
	098 040906600	2846 SALT POND CM		D220455	SFD	O									0
	098 040906700	2850 SALT POND CM		D220456	SFD	O									0
	098 040906800	2854 SALT POND CM		D220457	SFD	O									0

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier					Unit Types		Affordability by Household Incomes - Completed Entitlement								
1					2	3	4							5	6
Prior APN+	Current APN	Street Address	Project Name+	Local Jurisdiction Tracking ID	Unit Category (SFA,SFD,2 to 4,5+,ADU,MH)	Tenure R=Renter O=Owner	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Entitlement Date Approved	# of Units issued Entitlements
Summary Row: Start Data Entry Below							0	0	0	0	0	34	142		176
	098 040906900	2833 SALT POND CM		D220458	SFD	O									0
	098 040907000	2829 SALT POND CM		D220459	SFD	O									0
	098 040907100	2825 SALT POND CM		D220460	SFD	O									0
	099B811312200	1154 CENTRAL AV		D220468	ADU	R									0
	098 040906100	2872 KALAPAKI CM		D220517	SFD	O									0
	098 040906200	2876 KALAPAKI CM		D220518	SFD	O									0
	098 040906300	2880 KALAPAKI CM		D220519	SFD	O									0
	098 040906400	2884 KALAPAKI CM		D220520	SFD	O									0
	098 040906500	2840 SALT POND CM		D220521	SFD	O									0
	098 040907200	2821 POIPU CM		D220522	SFD	O									0
	098 040907300	2817 POIPU CM		D220523	SFD	O									0
	098 040905700	2801 POIPU CM		D220524	SFD	O									0
	098 040905800	2805 POIPU CM		D220525	SFD	O									0
	098 040905900	2809 POIPU CM		D220526	SFD	O									0
	098 040906000	2813 POIPU CM		D220528	SFD	O									0
	098 040500400	1900 First St	Legacy	CB19003	5+	R									0
	098 040500400	57 L Street	Legacy	D190234	5+	R									0
	099 002200504	780 Camden CM	Camden Commons	D151325	5+	O									0
	099B812700700	1121 Orchid Pl		D151430	SFD	O									0
	099 134302500	203 Vallecitos Rd		D191897	SFD	O									0
	098 034700800	1652 Pine Street		ADU210040	ADU	R									0
	099 005102400	3512 First St		ADU220029	ADU	R									0
	099 030605700	Camelia Dr		ADU220055	ADU	R									0
	099 031804500	689 Lido Dr		ADU220061	ADU	R									0
	099 018807400	374 Goldfinch Wy		ADU220068	ADU	R									0
	098 039707000	1282 Nice Ct		ADU220071	ADU	R									0
	099 004003500	181 Trevarno Rd		ADU220073	ADU	R									0
	099 134600501	1751 Bradford Wy		ADU230002	ADU	R									0
	099 045303200	2340 Stonebridge Rd		ADU230007	ADU	R									0
	097 014602800	1210 Killarney St		ADU230009	ADU	R									0
	097 009200500	1453 College Ave		ADU230020	ADU	R									0
	099A290901200	4935 Candy Ct		ADU230027	ADU	R									0
	098 035003800	981 Marylin Ave		D180595	ADU	R									0
	097 005401100	636 I St		ADU220002	ADU	R									0
	097 008501802	227 Holmes St		ADU220011	ADU	R									0
	097 014710500	1893 Helsinki Wy		ADU220048	ADU	R									0
	097 015003500	1354 Capri Ct		ADU220053	ADU	R									0
	099 004003900	122 Trevarno Rd		ADU220063	ADU	R									0
	098 022700106	559 I Street		ADU220066	ADU	R									0
	098 022700106	553 I Street		ADU220067	ADU	R									0
	099A143909000	5135 Felicia Av		ADU220072	ADU	R									0
	099 068300700	2380 Pendolino Ln		ADU220075	ADU	R									0
	099 018605400	441 Swallow Ct		ADU220076	ADU	R									0
	099 133000500	1979 RHODODENDRON Ct		ADU220077	ADU	R									0
	097 014702900	1669 Genoa St		ADU220078	ADU	R									0

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier					Unit Types		Affordability by Household Incomes - Completed Entitlement								
1					2	3	4							5	6
Prior APN+	Current APN	Street Address	Project Name+	Local Jurisdiction Tracking ID	Unit Category (SFA,SFD,2 to 4,5+,ADU,MH)	Tenure R=Renter O=Owner	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Entitlement Date Approved	# of Units issued Entitlements
Summary Row: Start Data Entry Below							0	0	0	0	0	34	142		176
	098A042402102	3832 East Ave		ADU220079	ADU	R									0
	098 023000801	1923 Linden St		ADU220081	ADU	R									0
	099 003900700	1532 Heather Ln		ADU230001	ADU	R									0
	098 040100400	420 Colusa Wy		ADU230004	ADU	R									0
	099 135103100	685 Shadow Mist Ct		ADU230005	ADU	R									0
	099 029901300	660 Orion Wy		ADU230006	ADU	R									0
	097 008916400	1179 Dublin Av		ADU230008	ADU	R									0
	099 080301600	2766 Lucca Ct		ADU230010	ADU	R									0
	097 004600201	561 M St		ADU230011	ADU	R									0
	099 072515700	2582 Merlot Ln		ADU230012	ADU	R									0
	099 017805002	407 Summertree Dr		ADU230013	ADU	R									0
	098 021601400	1855 Locust St		ADU230014	ADU	R									0
	098 034906100	733 P St		ADU230015	ADU	R									0
	099B535405300	6010 Augusta Wy		ADU230018	ADU	R									0
	098 029000403	1017 Ventura Av		ADU230019	ADU	R									0
	097 006400802	856 G St		ADU230021	ADU	R									0
	099B540600400	6476 Scenic Av		ADU230022	ADU	R									0
	097 014509000	1820 DeVaca Wy		ADU230025	ADU	R									0
	098 029301500	1086 Ventura Av		ADU230026	ADU	R									0
	099 098500400	2856 Carmen Ave		ADU230028	ADU	R									0
	098 020101203	1641 Pine St		ADU230029	ADU	R									0
	097 014003100	1675 Vancouver Wy		ADU230030	ADU	R									0
	099 019103600	48 Glacier Pl		ADU230032	ADU	R									0
	098A041400804	482 School St		ADU230034	ADU	R									0
	099 133802100	3981 Loch Lomand Wy		ADU230035	ADU	R									0
	099A292703100	5639 Moreland Way		ADU230036	ADU	R									0
	099 019100600	434 Yosemite Dr		ADU230037	ADU	R									0
	099 026000603	165 Stanley		ADU230040	ADU	R									0
	097 010200200	727 McLeod St		D220795	ADU	R									0
	099 031307900	888 Laguna St		D220838	ADU	R									0
	098 025100701	1949 Chestnut St		D220841	ADU	R									0
	098 025100701	1951 Chestnut St		D220842	ADU	R									0
	099B520602500	1639 Pinehurst Ct		D230081	ADU	R									0
	099 030113100	1007 Mocho St		D230146	ADU	R									0
	097 003900600	486 N St		D230367	ADU	R									0
	098 022100400	608 N St		D230379	ADU	R									0
	097 015101102	1752 Bella Kristina Ln		D210839	SFD	O									0
	097 015101102	1758 Bella Kristina Ln		D210840	SFD	O									0
	097 015101102	1762 Bella Kristina Ln		D210841	SFD	O									0
	097 015101102	1766 Bella Kristina Ln		D210842	SFD	O									0
	097 015101102	1774 Bella Kristina Ln		D210843	SFD	O									0
	097 015101102	1782 Bella Kristina Ln		D210844	SFD	O									0
	097 010200704	2750 Eighth St		D210855	SFD	O									0
	097 008501802	227 Holmes St		D220145	SFD	O									0
	097 010201200	2617 Seventh St		D220746	SFD	O									0
	099 032503200	1777 Cordoba St		SUB22007	SFD	O							4	11/21/2023	4

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier					Unit Types		Affordability by Household Incomes - Completed Entitlement								
1					2	3	4							5	6
Prior APN+	Current APN	Street Address	Project Name+	Local Jurisdiction Tracking ID	Unit Category (SFA,SFD,2 to 4,5+,ADU,MH)	Tenure R=Renter O=Owner	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Entitlement Date Approved	# of Units issued Entitlements
Summary Row: Start Data Entry Below							0	0	0	0	0	34	142		176
	905 001000403	Triad Dr	Triad East	SUB22005	5+	O						34	138	5/22/2023	172
	097 013600206	218 Church St		D210812	5+	R									0

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier			Affordability by Household Incomes - Building Permits								
			7							8	9
Current APN	Street Address	Project Name+	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Building Permits Date Issued	# of Units Issued Building Permits
			0	0	0	0	1	48	21		70
905 001000600	Triad Dr	Triad Condos									0
903 001003000	Portola Ave	Shea Portola Ave - Apartments									0
903 001003000	Portola Ave	Shea Portola Ave - Condos									0
099 007604300	2394 FARNSWORTH DR						1			1/5/2021	1
098 034904800	1223 PINE ST						1			3/30/2021	1
099 068000900	3209 SARATOGA CT							1		6/25/2021	1
098 020701300	841 K ST							1		3/7/2023	1
099 028301200	1699 SARDONYX RD							1		6/4/2021	1
099 031607300	849 MAYVIEW WY							1		7/26/2021	1
099 030604100	997 DE CAEN CT							1		8/17/2021	1
099 134302200	247 VALLECITOS RD							1		9/30/2021	1
099 045304300	2356 HAMPTON RD							1		12/13/2021	1
098 034908300	1083 LOCUST ST							1		6/14/2021	1
099 019102900	189 RAINIER AV							1		9/20/2021	1
099 133613200	573 SHERIDAN CI							1		9/9/2021	1
099 110203100	4240 GUILFORD AV							1		10/7/2021	1
097 014205900	1162 INNSBRUCK ST							1		10/25/2021	1
097 007500200	1731 SIXTH ST							1		11/29/2021	1
097 013910200	1451 NAPLES WY							1		11/16/2021	1
097 014807500	1745 STERLING CT								1	2/18/2021	1
098 024000117	450 N LIVERMORE AVE	VINEYARD 2.0	18							3/9/2022	18
098A040301504	4308 EMORY WY							1		2/11/2022	1
097 008103004	1442 THIRD ST							1		4/21/2022	1
098 024300603	2055 PARK ST							1		5/31/2022	1
099 045102400	1130 LOMITAS AV							1		2/8/2022	1
099 029802400	2138 MARS RD							1		5/12/2022	1
099 138313600	1550 SPRINGTOWN BL							1		4/20/2022	1
099 134501600	256 WHITE FANG WY							1		3/1/2022	1
097 014200901	1740 PEARY WY							1		3/29/2022	1
099B810107600	2386 SPYGLASS HILLS RD							1		3/28/2022	1
099 136501300	1120 HANSEN RD							1		5/18/2022	1
098 038902700	969 CAYUGA DR							1		5/24/2022	1
099 046103700	2974 PICHOLINE CT							1		7/18/2022	1
099 132901700	531 LAGRANGE LN							1		4/26/2022	1
098 039110000	799 L ST							1		6/8/2022	1
098 039110000	799 L ST							1		4/1/2022	1

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier			Affordability by Household Incomes - Building Permits								
			7							8	9
Current APN	Street Address	Project Name+	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Building Permits Date Issued	# of Units Issued Building Permits
			0	0	0	0	1	48	21		70
099B520802900	5593 OAKMONT CI							1		6/29/2022	1
099B505000802	919 CENTRAL AV						1			8/25/2022	1
099 029903000	846 SATURN WY							1		8/25/2022	1
099 029601200	749 ORION WY							1		9/13/2022	1
099 031307800	874 LAGUNA ST							1		7/21/2022	1
099 019000900	448 HUMMINGBIRD LN							1		6/27/2022	1
099 005102400	3512 FIRST ST							1		10/26/2022	1
098 032000600	617 P ST							1		9/28/2022	1
099 080300903	2602 LUCCA CT							1		7/18/2022	1
098 034906200	1572 ELM ST							1		11/22/2022	1
099 130002000	1908 PARKSIDE CT							1		6/30/2022	1
098 024700206	1666 CHESTNUT ST							1		7/5/2022	1
099 132902900	1920 ALTAIR AV							1		8/8/2022	1
098 039703700	1172 DELAWARE WY							1		7/20/2022	1
099 029503300	2498 LIVORNO CT							1		8/11/2022	1
097 007200301	980 ACACIA WY							1		12/21/2022	1
098A042401100	3895 HARVARD WY							1		9/12/2022	1
099 033002800	69 AGATE CT							1		8/24/2022	1
098 038704800	640 ORIOLE AV							1		10/10/2022	1
097 004900401	581 J ST							1		10/31/2022	1
099 033200800	280 LOUIS CT							1		11/1/2022	1
098A041401802	3428 EAST AV							1		10/18/2022	1
099 045407500	1359 CHELSEA WY							1		11/30/2022	1
097 009708200	2357 COLLEGE AV							1		10/10/2022	1
099 133805000	4001 CAMROSE AV							1		10/26/2022	1
099 045410301	2633 REGENT RD							1		12/12/2022	1
097 008102601	210 R ST							1		10/31/2022	1
099 075102500	2021 CABERNET WY							1		11/7/2022	1
099 110102400	4339 RUTGERS CT							1		11/29/2022	1
099 002800200	1019 BLUEBELL DR							1		11/17/2022	1
099 133502000	1548 MURDELL LN							1		12/29/2022	1
099 001502202	2680 WAVERLEY WY								1	12/19/2022	1
098 024000117	456 LIVERMORE AV	VINEYARD 2.0	6							3/9/2022	6
097 015101102	1734 BELLA KRISTINA LN								1	12/29/2022	1
097 015101102	1740 BELLA KRISTINA LN								1	6/30/2022	1
097 015101102	1746 BELLA KRISTINA LN								1	6/30/2022	1

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier			Affordability by Household Incomes - Building Permits								
			7							8	9
Current APN	Street Address	Project Name+	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Building Permits Date Issued	# of Units Issued Building Permits
			0	0	0	0	1	48	21		70
099 134501600	256 WHITE FANG WY							1		4/19/2022	1
098 030402100	1460 OLIVINA AV							1		4/11/2022	1
098 040906600	2846 SALT POND CM								1	7/26/2022	1
098 040906700	2850 SALT POND CM								1	7/26/2022	1
098 040906800	2854 SALT POND CM								1	7/26/2022	1
098 040906900	2833 SALT POND CM								1	7/26/2022	1
098 040907000	2829 SALT POND CM								1	7/26/2022	1
098 040907100	2825 SALT POND CM								1	7/26/2022	1
099B811312200	1154 CENTRAL AV							1		7/12/2022	1
098 040906100	2872 KALAPAKI CM								1	9/6/2022	1
098 040906200	2876 KALAPAKI CM								1	9/6/2022	1
098 040906300	2880 KALAPAKI CM								1	9/6/2022	1
098 040906400	2884 KALAPAKI CM								1	9/6/2022	1
098 040906500	2840 SALT POND CM								1	9/6/2022	1
098 040907200	2821 POIPU CM								1	9/6/2022	1
098 040907300	2817 POIPU CM								1	9/6/2022	1
098 040905700	2801 POIPU CM								1	10/12/2022	1
098 040905800	2805 POIPU CM								1	10/12/2022	1
098 040905900	2809 POIPU CM								1	10/12/2022	1
098 040906000	2813 POIPU CM								1	10/12/2022	1
098 040500400	1900 First St	Legacy									0
098 040500400	57 L Street	Legacy									0
099 002200504	780 Camden CM	Camden Commons									0
099B812700700	1121 Orchid Pl										0
099 134302500	203 Vallecitos Rd										0
098 034700800	1652 Pine Street										0
099 005102400	3512 First St										0
099 030605700	Camelia Dr										0
099 031804500	689 Lido Dr										0
099 018807400	374 Goldfinch Wy										0
098 039707000	1282 Nice Ct										0
099 004003500	181 Trevarno Rd										0
099 134600501	1751 Bradford Wy										0
099 045303200	2340 Stonebridge Rd										0
097 014602800	1210 Killarney St										0
097 009200500	1453 College Ave										0
099A290901200	4935 Candy Ct										0
098 035003800	981 Marylin Ave										0
097 005401100	636 I St							1		11/30/2023	1
097 008501802	227 Holmes St							1		6/1/2023	1
097 014710500	1893 Helsinki Wy							1		4/26/2023	1
097 015003500	1354 Capri Ct							1		4/12/2023	1

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier			Affordability by Household Incomes - Building Permits								
			7							8	9
Current APN	Street Address	Project Name+	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Building Permits Date Issued	# of Units Issued Building Permits
			0	0	0	0	1	48	21		70
099 004003900	122 Trevarno Rd							1		11/13/2023	1
098 022700106	559 I Street							1		1/17/2023	1
098 022700106	553 I Street							1		1/13/2023	1
099A143909000	5135 Felicia Av							1		10/9/2023	1
099 068300700	2380 Pendolino Ln							1		4/3/2023	1
099 018605400	441 Swallow Ct							1		7/24/2023	1
099 133000500	1979 RHODODENDRON Ct							1		5/16/2023	1
097 014702900	1669 Genoa St							1		4/19/2023	1
098A042402102	3832 East Ave							1		1/23/2023	1
098 023000801	1923 Linden St							1		4/3/2023	1
099 003900700	1532 Heather Ln							1		6/21/2023	1
098 040100400	420 Colusa Wy							1		10/17/2023	1
099 135103100	685 Shadow Mist Ct							1		6/27/2023	1
099 029901300	660 Orion Wy							1		6/22/2023	1
097 008916400	1179 Dublin Av							1		8/24/2023	1
099 080301600	2766 Lucca Ct							1		6/21/2023	1
097 004600201	561 M St							1		10/9/2023	1
099 072515700	2582 Merlot Ln							1		6/20/2023	1
099 017805002	407 Summertree Dr							1		8/30/2023	1
098 021601400	1855 Locust St							1		8/28/2023	1
098 034906100	733 P St							1		9/19/2023	1
099B535405300	6010 Augusta Wy							1		8/14/2023	1
098 029000403	1017 Ventura Av							1		8/9/2023	1
097 006400802	856 G St							1		7/13/2023	1
099B540600400	6476 Scenic Av							1		8/29/2023	1
097 014509000	1820 DeVaca Wy							1		11/2/2023	1
098 029301500	1086 Ventura Av							1		9/21/2023	1
099 098500400	2856 Carmen Ave							1		9/26/2023	1
098 020101203	1641 Pine St							1		12/7/2023	1
097 014003100	1675 Vancouver Wy						1			11/7/2023	1
099 019103600	48 Glacier Pl							1		9/27/2023	1
098A041400804	482 School St							1		11/7/2023	1
099 133802100	3981 Loch Lomand Wy							1		10/4/2023	1
099A292703100	5639 Moreland Way							1		12/6/2023	1
099 019100600	434 Yosemite Dr							1		12/4/2023	1
099 026000603	165 Stanley							1		12/7/2023	1
097 010200200	727 McLeod St							1		2/13/2023	1
099 031307900	888 Laguna St							1		2/7/2023	1
098 025100701	1949 Chestnut St							1		4/17/2023	1
098 025100701	1951 Chestnut St							1		4/17/2023	1
099B520602500	1639 Pinehurst Ct							1		5/17/2023	1
099 030113100	1007 Mocho St							1		6/15/2023	1
097 003900600	486 N St							1		10/23/2023	1
098 022100400	608 N St							1		9/6/2023	1
097 015101102	1752 Bella Kristina Ln								1	12/18/2023	1
097 015101102	1758 Bella Kristina Ln								1	12/18/2023	1

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier			Affordability by Household Incomes - Building Permits								
			7							8	9
Current APN	Street Address	Project Name+	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Building Permits Date Issued	# of Units Issued Building Permits
			0	0	0	0	1	48	21		70
097 015101102	1762 Bella Kristina Ln								1	12/18/2023	1
097 015101102	1766 Bella Kristina Ln								1	5/22/2023	1
097 015101102	1774 Bella Kristina Ln								1	5/22/2023	1
097 015101102	1782 Bella Kristina Ln								1	5/22/2023	1
097 010200704	2750 Eighth St								1	3/28/2023	1
097 008501802	227 Holmes St								1	6/1/2023	1
097 010201200	2617 Seventh St								1	4/10/2023	1
099 032503200	1777 Cordoba St										0
905 001000403	Triad Dr	Triad East									0
097 013600206	218 Church St								12	8/29/2023	12

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Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier			Affordability by Household Incomes - Certificates of Occupancy								
			10							11	12
Current APN	Street Address	Project Name+	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Certificates of Occupancy or other forms of readiness (see instructions) Date Issued	# of Units issued Certificates of Occupancy or other forms of readiness
			0	0	0	0	4	40	243		287
905 001000600	Triad Dr	Triad Condos									0
903 001003000	Portola Ave	Shea Portola Ave - Apartments									0
903 001003000	Portola Ave	Shea Portola Ave - Condos									0
099 007604300	2394 FARNSWORTH DR						1			1/24/2023	1
098 034904800	1223 PINE ST						1			1/26/2023	1
099 068000900	3209 SARATOGA CT							1		1/26/2023	1
098 020701300	841 K ST							1		3/7/2023	1
099 028301200	1699 SARDONYX RD										0
099 031607300	849 MAYVIEW WY										0
099 030604100	997 DE CAEN CT										0
099 134302200	247 VALLECITOS RD										0
099 045304300	2356 HAMPTON RD							1		1/19/2023	1
098 034908300	1083 LOCUST ST							1		3/23/2023	1
099 019102900	189 RAINIER AV							1		3/17/2023	1
099 133613200	573 SHERIDAN CI										0
099 110203100	4240 GUILFORD AV										0
097 014205900	1162 INNSBRUCK ST										0
097 007500200	1731 SIXTH ST							1		10/27/2023	1
097 013910200	1451 NAPLES WY							1		4/10/2023	1
097 014807500	1745 STERLING CT										0
098 024000117	450 N LIVERMORE AVE	VINEYARD 2.0									0
098A040301504	4308 EMORY WY							1		7/20/2023	1
097 008103004	1442 THIRD ST										0
098 024300603	2055 PARK ST										0
099 045102400	1130 LOMITAS AV										0
099 029802400	2138 MARS RD							1		8/30/2023	1
099 138313600	1550 SPRINGTOWN BL							1		4/13/2023	1
099 134501600	256 WHITE FANG WY										0
097 014200901	1740 PEARY WY							1		4/4/2023	1
099B810107600	2386 SPYGLASS HILLS RD										0
099 136501300	1120 HANSEN RD							1		8/22/2023	1
098 038902700	969 CAYUGA DR										0
099 046103700	2974 PICHOLINE CT							1		8/4/2023	1
099 132901700	531 LAGRANGE LN										0
098 039110000	799 L ST							1		11/22/2023	1
098 039110000	799 L ST							1		11/22/2023	1
099B520802900	5593 OAKMONT CI										0
099B505000802	919 CENTRAL AV						1			4/14/2023	1

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier			Affordability by Household Incomes - Certificates of Occupancy								
			10							11	12
Current APN	Street Address	Project Name+	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Certificates of Occupancy or other forms of readiness (see instructions) Date Issued	# of Units issued Certificates of Occupancy or other forms of readiness
			0	0	0	0	4	40	243		287
099 029903000	846 SATURN WY										0
099 029601200	749 ORION WY										0
099 031307800	874 LAGUNA ST							1		6/9/2023	1
099 019000900	448 HUMMINGBIRD LN							1		1/6/2023	1
099 005102400	3512 FIRST ST							1		8/1/2023	1
098 032000600	617 P ST										0
099 080300903	2602 LUCCA CT										0
098 034906200	1572 ELM ST										0
099 130002000	1908 PARKSIDE CT										0
098 024700206	1666 CHESTNUT ST							1		9/13/2023	1
099 132902900	1920 ALTAIR AV							1		5/2/2023	1
098 039703700	1172 DELAWARE WY										0
099 029503300	2498 LIVORNO CT							1		11/28/2023	1
097 007200301	980 ACACIA WY										0
098A042401100	3895 HARVARD WY										0
099 033002800	69 AGATE CT							1		2/16/2023	1
098 038704800	640 ORIOLE AV										0
097 004900401	581 J ST										0
099 033200800	280 LOUIS CT										0
098A041401802	3428 EAST AV										0
099 045407500	1359 CHELSEA WY										0
097 009708200	2357 COLLEGE AV							1		4/25/2023	1
099 133805000	4001 CAMROSE AV										0
099 045410301	2633 REGENT RD										0
097 008102601	210 R ST							1		6/13/2023	1
099 075102500	2021 CABERNET WY							1		6/12/2023	1
099 110102400	4339 RUTGERS CT							1		7/20/2023	1
099 002800200	1019 BLUEBELL DR							1		7/25/2023	1
099 133502000	1548 MURDELL LN										0
099 001502202	2680 WAVERLEY WY										0
098 024000117	456 LIVERMORE AV	VINEYARD 2.0									0
097 015101102	1734 BELLA KRISTINA LN										0
097 015101102	1740 BELLA KRISTINA LN										0
097 015101102	1746 BELLA KRISTINA LN										0
099 134501600	256 WHITE FANG WY										0
098 030402100	1460 OLIVINA AV							1		11/29/2023	1
098 040906600	2846 SALT POND CM								1	9/22/2023	1

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Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier			Affordability by Household Incomes - Certificates of Occupancy								
			10							11	12
Current APN	Street Address	Project Name+	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Certificates of Occupancy or other forms of readiness (see instructions) Date Issued	# of Units issued Certificates of Occupancy or other forms of readiness
			0	0	0	0	4	40	243		287
098 040906700	2850 SALT POND CM								1	8/17/2023	1
098 040906800	2854 SALT POND CM								1	8/17/2023	1
098 040906900	2833 SALT POND CM								1	8/17/2023	1
098 040907000	2829 SALT POND CM										0
098 040907100	2825 SALT POND CM								1	8/17/2023	1
099B811312200	1154 CENTRAL AV										0
098 040906100	2872 KALAPAKI CM										0
098 040906200	2876 KALAPAKI CM										0
098 040906300	2880 KALAPAKI CM										0
098 040906400	2884 KALAPAKI CM								1	12/7/2023	1
098 040906500	2840 SALT POND CM								1	8/17/2023	1
098 040907200	2821 POIPU CM								1	9/22/2023	1
098 040907300	2817 POIPU CM								1	9/26/2023	1
098 040905700	2801 POIPU CM								1	11/2/2023	1
098 040905800	2805 POIPU CM								1	11/2/2023	1
098 040905900	2809 POIPU CM								1	10/12/2023	1
098 040906000	2813 POIPU CM								1	10/12/2023	1
098 040500400	1900 First St	Legacy							34	12/15/2023	34
098 040500400	57 L Street	Legacy							188	12/15/2023	188
099 002200504	780 Camden CM	Camden Commons							6	6/2/2023	6
099B812700700	1121 Orchid Pl								1	7/13/2023	1
099 134302500	203 Vallecitos Rd								1	12/6/2023	1
098 034700800	1652 Pine Street							1		5/12/2023	1
099 005102400	3512 First St							1		8/1/2023	1
099 030605700	Camelia Dr							1		5/30/2023	1
099 031804500	689 Lido Dr							1		11/13/2023	1
099 018807400	374 Goldfinch Wy							1		6/21/2023	1
098 039707000	1282 Nice Ct							1		6/21/2023	1
099 004003500	181 Trevarno Rd							1		5/30/2023	1
099 134600501	1751 Bradford Wy							1		6/21/2023	1
099 045303200	2340 Stonebridge Rd							1		8/24/2023	1
097 014602800	1210 Killarney St						1			8/25/2023	1
097 009200500	1453 College Ave							1		6/20/2023	1
099A290901200	4935 Candy Ct							1		11/21/2023	1
098 035003800	981 Marylin Ave							1		1/23/2023	1
097 005401100	636 I St										0
097 008501802	227 Holmes St										0
097 014710500	1893 Helsinki Wy										0
097 015003500	1354 Capri Ct										0
099 004003900	122 Trevarno Rd										0
098 022700106	559 I Street										0
098 022700106	553 I Street										0
099A143909000	5135 Felicia Av										0

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier			Affordability by Household Incomes - Certificates of Occupancy								
			10							11	12
Current APN	Street Address	Project Name+	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Certificates of Occupancy or other forms of readiness (see instructions) Date Issued	# of Units issued Certificates of Occupancy or other forms of readiness
			0	0	0	0	4	40	243		287
099 068300700	2380 Pendolino Ln										0
099 018605400	441 Swallow Ct										0
099 133000500	1979 RHODODENDRON Ct										0
097 014702900	1669 Genoa St										0
098A042402102	3832 East Ave										0
098 023000801	1923 Linden St										0
099 003900700	1532 Heather Ln										0
098 040100400	420 Colusa Wy										0
099 135103100	685 Shadow Mist Ct										0
099 029901300	660 Orion Wy										0
097 008916400	1179 Dublin Av										0
099 080301600	2766 Lucca Ct										0
097 004600201	561 M St										0
099 072515700	2582 Merlot Ln										0
099 017805002	407 Summertree Dr										0
098 021601400	1855 Locust St										0
098 034906100	733 P St										0
099B535405300	6010 Augusta Wy										0
098 029000403	1017 Ventura Av										0
097 006400802	856 G St										0
099B540600400	6476 Scenic Av										0
097 014509000	1820 DeVaca Wy										0
098 029301500	1086 Ventura Av										0
099 098500400	2856 Carmen Ave										0
098 020101203	1641 Pine St										0
097 014003100	1675 Vancouver Wy										0
099 019103600	48 Glacier Pl										0
098A041400804	482 School St										0
099 133802100	3981 Loch Lomand Wy										0
099A292703100	5639 Moreland Way										0
099 019100600	434 Yosemite Dr										0
099 026000603	165 Stanley										0
097 010200200	727 McLeod St										0
099 031307900	888 Laguna St										0
098 025100701	1949 Chestnut St										0
098 025100701	1951 Chestnut St										0
099B520602500	1639 Pinehurst Ct										0
099 030113100	1007 Mocho St										0
097 003900600	486 N St										0
098 022100400	608 N St										0
097 015101102	1752 Bella Kristina Ln										0
097 015101102	1758 Bella Kristina Ln										0
097 015101102	1762 Bella Kristina Ln										0

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Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier			Affordability by Household Incomes - Certificates of Occupancy								
			10							11	12
Current APN	Street Address	Project Name+	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Certificates of Occupancy or other forms of readiness (see instructions) Date Issued	# of Units issued Certificates of Occupancy or other forms of readiness
			0	0	0	0	4	40	243		287
097 015101102	1766 Bella Kristina Ln										0
097 015101102	1774 Bella Kristina Ln										0
097 015101102	1782 Bella Kristina Ln										0
097 010200704	2750 Eighth St										0
097 008501802	227 Holmes St										0
097 010201200	2617 Seventh St										0
099 032503200	1777 Cordoba St										0
905 001000403	Triad Dr	Triad East									0
097 013600206	218 Church St										0

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Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier				Streamlining	Infill	Housing with Financial Assistance and/or Deed Restrictions		Housing without Financial Assistance or Deed Restrictions	Term of Affordability or Deed Restriction	Demolished/Destroyed Units			Density Bonus			
			13	14	15	16	17	18	19	20			21	22	23	24
Current APN	Street Address	Project Name*	How many of the units were Extremely Low Income?	Please select the streamlining provision the project was APPROVED pursuant to. (may select multiple)	Infill Units? Y/N*	Assistance Programs for Each Development (may select multiple - see instructions)	Deed Restriction Type (may select multiple - see instructions)	For units affordable without financial assistance or deed restrictions, explain how the locality determined the units were affordable (see instructions)	Term of Affordability or Deed Restriction (years) (if affordable in perpetuity enter 1000)*	Number of Demolished/Destroyed Units	Demolished or Destroyed Units	Demolished/Destroyed Units Owner or Renter	Total Density Bonus Applied to the Project (Percentage Increase in Total Allowable Units or Total Maximum Allowable Residential Gross Floor Area)	Number of Other Incentives, Concessions, Waivers, or Other Modifications Given to the Project (Excluding Parking Waivers or Parking Reductions)	List the incentives, concessions, waivers, and modifications (Excluding Parking Waivers or Parking Modifications)	Did the project receive a reduction or waiver of parking standards? (Y/N)
			24							0						
905 001000600	Triad Dr	Triad Condos	0	NONE	N		DB						0.0%	1	Development Standards Modification	No
903 001003000	Portola Ave	Shea Portola Ave - Apartments	0	NONE	N		DB						0.0%	2	Development Standards Modification	No
903 001003000	Portola Ave	Shea Portola Ave - Condos	0	NONE	N		DB						0.0%	2	Development Standards Modification	No
099 007604300	2394 FARNSWORTH DR		0	NONE	N			ADUs are rented at moderate prices	1000							
098 034904800	1223 PINE ST		0	NONE	N			ADUs are rented at moderate prices	1000							
099 068000900	3209 SARATOGA CT		0	NONE	N			ADUs are rented at moderate prices								
098 020701300	841 K ST		0	NONE	N			ADUs are rented at moderate prices								
099 028301200	1699 SARDONYX RD		0	NONE	N			ADUs are rented at moderate prices								
099 031607300	849 MAYVIEW WY		0	NONE	N			ADUs are rented at moderate prices								
099 030604100	997 DE CAEN CT		0	NONE	N			ADUs are rented at moderate prices								
099 134302200	247 VALLECITOS RD		0	NONE	N			ADUs are rented at moderate prices								
099 045304300	2356 HAMPTON RD		0	NONE	N			ADUs are rented at moderate prices								
098 034908300	1083 LOCUST ST		0	NONE	N			ADUs are rented at moderate prices								
099 019102900	189 RAINIER AV		0	NONE	N			ADUs are rented at moderate prices								
099 133613200	573 SHERIDAN CI		0	NONE	N			ADUs are rented at moderate prices								
099 110203100	4240 GUILFORD AV		0	NONE	N			ADUs are rented at moderate prices								
097 014205900	1162 INNSBRUCK ST		0	NONE	N			ADUs are rented at moderate prices								
097 007500200	1731 SIXTH ST		0	NONE	N			ADUs are rented at moderate prices								
097 013910200	1451 NAPLES WY		0	NONE	N			ADUs are rented at moderate prices								
097 014807500	1745 STERLING CT		0	NONE	Y											
098 024000117	450 N LIVERMORE AVE	VINEYARD 2.0	18	NONE	N	LHTF, NPLH	Other									
098A040301504	4308 EMORY WY		0	NONE	N			ADUs are rented at moderate prices								
097 008103004	1442 THIRD ST		0	NONE	N			ADUs are rented at moderate prices								
098 024300603	2055 PARK ST		0	NONE	N			ADUs are rented at moderate prices								
099 045102400	1130 LOMITAS AV		0	NONE	N			ADUs are rented at moderate prices								
099 029802400	2138 MARS RD		0	NONE	N			ADUs are rented at moderate prices								
099 138313600	1550 SPRINGTOWN BL		0	NONE	N			ADUs are rented at moderate prices								
099 134501600	256 WHITE FANG WY		0	NONE	N			ADUs are rented at moderate prices								
097 014200901	1740 PEARY WY		0	NONE	N			ADUs are rented at moderate prices								
099B810107600	2386 SPYGLASS HILLS RD		0	NONE	N			ADUs are rented at moderate prices								
099 136501300	1120 HANSEN RD		0	NONE	N			ADUs are rented at moderate prices								
098 038902700	969 CAYUGA DR		0	NONE	N			ADUs are rented at moderate prices								
099 046103700	2974 PICHOLINE CT		0	NONE	N			ADUs are rented at moderate prices								
099 132901700	531 LAGRANGE LN		0	NONE	N			ADUs are rented at moderate prices								
098 039110000	799 L ST		0	NONE	N			ADUs are rented at moderate prices								
098 039110000	799 L ST		0	NONE	N			ADUs are rented at moderate prices								
099B520802900	5593 OAKMONT CI		0	NONE	N			ADUs are rented at moderate prices								
099B505000802	919 CENTRAL AV		0	NONE	N			ADUs are rented at moderate prices	1,000							
099 029903000	846 SATURN WY		0	NONE	N			ADUs are rented at moderate prices								
099 029601200	749 ORION WY		0	NONE	N			ADUs are rented at moderate prices								
099 031307800	874 LAGUNA ST		0	NONE	N			ADUs are rented at moderate prices								
099 019000900	448 HUMMINGBIRD LN		0	NONE	N			ADUs are rented at moderate prices								
099 005102400	3512 FIRST ST		0	NONE	N			ADUs are rented at moderate prices								
098 032000600	617 P ST		0	NONE	N			ADUs are rented at moderate prices								
099 080300903	2602 LUCCA CT		0	NONE	N			ADUs are rented at moderate prices								
098 034906200	1572 ELM ST		0	NONE	N			ADUs are rented at moderate prices								
099 130002000	1908 PARKSIDE CT		0	NONE	N			ADUs are rented at moderate prices								
098 024700206	1666 CHESTNUT ST		0	NONE	N			ADUs are rented at moderate prices								
099 132902900	1920 ALTAIR AV		0	NONE	N			ADUs are rented at moderate prices								
098 039703700	1172 DELAWARE WY		0	NONE	N			ADUs are rented at moderate prices								
099 029503300	2498 LIVORNO CT		0	NONE	N			ADUs are rented at moderate prices								
097 007200301	980 ACACIA WY		0	NONE	N			ADUs are rented at moderate prices								

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier				Streamlining	Infill	Housing with Financial Assistance and/or Deed Restrictions		Housing without Financial Assistance or Deed Restrictions	Term of Affordability or Deed Restriction	Demolished/Destroyed Units			Density Bonus			
			13	14	15	16	17	18	19	20			21	22	23	24
Current APN	Street Address	Project Name*	How many of the units were Extremely Low Income?	Please select the streamlining provision the project was APPROVED pursuant to. (may select multiple)	Infill Units? Y/N*	Assistance Programs for Each Development (may select multiple - see instructions)	Deed Restriction Type (may select multiple - see instructions)	For units affordable without financial assistance or deed restrictions, explain how the locality determined the units were affordable (see instructions)	Term of Affordability or Deed Restriction (years) (if affordable in perpetuity enter 1000)*	Number of Demolished/Destroyed Units	Demolished or Destroyed Units	Demolished/Destroyed Units Owner or Renter	Total Density Bonus Applied to the Project (Percentage Increase in Total Allowable Units or Total Maximum Allowable Residential Gross Floor Area)	Number of Other Incentives, Concessions, Waivers, or Other Modifications Given to the Project (Excluding Parking Waivers or Parking Reductions)	List the incentives, concessions, waivers, and modifications (Excluding Parking Waivers or Parking Modifications)	Did the project receive a reduction or waiver of parking standards? (Y/N)
			24							0						
098A042401100	3895 HARVARD WY		0	NONE	N			ADUs are rented at moderate prices								
099 033002800	69 AGATE CT		0	NONE	N			ADUs are rented at moderate prices								
098 036704800	640 ORIOLE AV		0	NONE	N			ADUs are rented at moderate prices								
097 004900401	581 J ST		0	NONE	N			ADUs are rented at moderate prices								
099 033200800	280 LOUIS CT		0	NONE	N			ADUs are rented at moderate prices								
098A041401802	3428 EAST AV		0	NONE	N			ADUs are rented at moderate prices								
099 045407500	1359 CHELSEA WY		0	NONE	N			ADUs are rented at moderate prices								
097 009708200	2357 COLLEGE AV		0	NONE	N			ADUs are rented at moderate prices								
099 133805000	4001 CAMROSE AV		0	NONE	N			ADUs are rented at moderate prices								
099 045410301	2633 REGENT RD		0	NONE	N			ADUs are rented at moderate prices								
097 008102601	210 R ST		0	NONE	N			ADUs are rented at moderate prices								
099 075102500	2021 CABERNET WY		0	NONE	N			ADUs are rented at moderate prices								
099 110102400	4339 RUTGERS CT		0	NONE	N			ADUs are rented at moderate prices								
099 002800200	1019 BLUEBELL DR		0	NONE	N			ADUs are rented at moderate prices								
099 133502000	1548 MURDELL LN		0	NONE	N			ADUs are rented at moderate prices								
099 001502202	2680 WAVERLEY WY		0	NONE	N											
098 024000117	456 LIVERMORE AV	VINEYARD 2.0	6	NONE	Y	LHTF, NPLH	Other									
097 015101102	1734 BELLA KRISTINA LN		0	NONE	N											
097 015101102	1740 BELLA KRISTINA LN		0	NONE	N											
097 015101102	1746 BELLA KRISTINA LN		0	NONE	N											
099 134501600	256 WHITE FANG WY		0	NONE	N			ADUs are rented at moderate prices								
098 030402100	1460 OLIVINA AV		0	NONE	N			ADUs are rented at moderate prices								
098 040906600	2846 SALT POND CM		0	NONE	N											
098 040906700	2850 SALT POND CM		0	NONE	N											
098 040906800	2854 SALT POND CM		0	NONE	N											
098 040906900	2833 SALT POND CM		0	NONE	N											
098 040907000	2829 SALT POND CM		0	NONE	N											
098 040907100	2825 SALT POND CM		0	NONE	N											
099B811312200	1154 CENTRAL AV		0	NONE	N			ADUs are rented at moderate prices								
098 040906100	2872 KALAPAKI CM		0	NONE	N											
098 040906200	2876 KALAPAKI CM		0	NONE	N											
098 040906300	2880 KALAPAKI CM		0	NONE	N											
098 040906400	2884 KALAPAKI CM		0	NONE	N											
098 040906500	2840 SALT POND CM		0	NONE	N											
098 040907200	2821 POIPU CM		0	NONE	N											
098 040907300	2817 POIPU CM		0	NONE	N											
098 040905700	2807 POIPU CM		0	NONE	N											
098 040905800	2805 POIPU CM		0	NONE	N											
098 040905900	2809 POIPU CM		0	NONE	N											
098 040906000	2813 POIPU CM		0	NONE	N											
098 040500400	1900 First St	Legacy	0	NONE	Y											
098 040500400	57 L Street	Legacy	0	NONE	Y											
099 002200504	780 Camden CM	Camden Commons	0	NONE	N											
099B812700700	1121 Orchid Pl		0	NONE	N											
099 134302500	203 Vallecitos Rd		0	NONE	N											
098 034700800	1652 Pine Street		0	NONE	N			ADUs are rented at moderate prices								
099 005102400	3512 First St		0	NONE	N			ADUs are rented at moderate prices								
099 030605700	Camelia Dr		0	NONE	N			ADUs are rented at moderate prices								
099 031804500	689 Lido Dr		0	NONE	N			ADUs are rented at moderate prices								
099 018807400	374 Goldfinch Wy		0	NONE	N			ADUs are rented at moderate prices								
098 039707000	1282 Nice Ct		0	NONE	N			ADUs are rented at moderate prices								
099 004003500	181 Trevarno Rd		0	NONE	N			ADUs are rented at moderate prices								
099 134600501	1751 Bradford Wy		0	NONE	N			ADUs are rented at moderate prices								
099 045303200	2340 Stonebridge Rd		0	NONE	N			ADUs are rented at moderate prices								
097 014602800	1210 Killarney St		0	NONE	N			ADUs are rented at moderate prices	1000							
097 009200500	1453 College Ave		0	NONE	N			ADUs are rented at moderate prices								
099A290901200	4935 Candy Ct		0	NONE	N			ADUs are rented at moderate prices								
098 035003800	981 Marylin Ave		0	NONE	N			ADUs are rented at moderate prices								
097 005401100	636 I St		0	NONE	N			ADUs are rented at moderate prices								

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier				Streamlining	Infill	Housing with Financial Assistance and/or Deed Restrictions		Housing without Financial Assistance or Deed Restrictions	Term of Affordability or Deed Restriction	Demolished/Destroyed Units			Density Bonus			
			13	14	15	16	17	18	19	20			21	22	23	24
Current APN	Street Address	Project Name*	How many of the units were Extremely Low Income?	Please select the streamlining provision the project was APPROVED pursuant to. (may select multiple)	Infill Units? Y/N*	Assistance Programs for Each Development (may select multiple - see instructions)	Deed Restriction Type (may select multiple - see instructions)	For units affordable without financial assistance or deed restrictions, explain how the locality determined the units were affordable (see instructions)	Term of Affordability or Deed Restriction (years) (if affordable in perpetuity enter 1000)*	Number of Demolished/Destroyed Units	Demolished or Destroyed Units	Demolished/Destroyed Units Owner or Renter	Total Density Bonus Applied to the Project (Percentage Increase in Total Allowable Units or Total Maximum Allowable Residential Gross Floor Area)	Number of Other Incentives, Concessions, Waivers, or Other Modifications Given to the Project (Excluding Parking Waivers or Parking Reductions)	List the incentives, concessions, waivers, and modifications (Excluding Parking Waivers or Parking Modifications)	Did the project receive a reduction or waiver of parking standards? (Y/N)
			24							0						
097 008501802	227 Holmes St		0	NONE	N			ADUs are rented at moderate prices								
097 014710500	1893 Helsinki Wy		0	NONE	N			ADUs are rented at moderate prices								
097 015003500	1354 Capri Ct		0	NONE	N			ADUs are rented at moderate prices								
099 004003900	122 Trevarno Rd		0	NONE	N			ADUs are rented at moderate prices								
098 022700106	559 I Street		0	NONE	N			ADUs are rented at moderate prices								
098 022700106	553 I Street		0	NONE	N			ADUs are rented at moderate prices								
099A143909000	5135 Felicia Av		0	NONE	N			ADUs are rented at moderate prices								
099 068300700	2380 Pendolino Ln		0	NONE	N			ADUs are rented at moderate prices								
099 018605400	441 Swallow Ct		0	NONE	N			ADUs are rented at moderate prices								
099 133000500	1979 RHODODENDRON Ct		0	NONE	N			ADUs are rented at moderate prices								
097 014702900	1669 Genoa St		0	NONE	N			ADUs are rented at moderate prices								
098A042402102	3832 East Ave		0	NONE	N			ADUs are rented at moderate prices								
098 023000801	1923 Linden St		0	NONE	N			ADUs are rented at moderate prices								
099 003900700	1532 Heather Ln		0	NONE	N			ADUs are rented at moderate prices								
098 040100400	420 Colusa Wy		0	NONE	N			ADUs are rented at moderate prices								
099 135103100	685 Shadow Mist Ct		0	NONE	N			ADUs are rented at moderate prices								
099 029901300	660 Orion Wy		0	NONE	N			ADUs are rented at moderate prices								
097 008916400	1179 Dublin Av		0	NONE	N			ADUs are rented at moderate prices								
099 080301600	2766 Lucca Ct		0	NONE	N			ADUs are rented at moderate prices								
097 004600201	561 M St		0	NONE	N			ADUs are rented at moderate prices								
099 072515700	2582 Merlot Ln		0	NONE	N			ADUs are rented at moderate prices								
099 017805002	407 Summertree Dr		0	NONE	N			ADUs are rented at moderate prices								
098 021601400	1855 Locust St		0	NONE	N			ADUs are rented at moderate prices								
098 034906100	733 P St		0	NONE	N			ADUs are rented at moderate prices								
099B535405300	6010 Augusta Wy		0	NONE	N			ADUs are rented at moderate prices								
098 029000403	1017 Ventura Av		0	NONE	N			ADUs are rented at moderate prices								
097 006400802	856 G St		0	NONE	N			ADUs are rented at moderate prices								
099B540600400	6476 Scenic Av		0	NONE	N			ADUs are rented at moderate prices								
097 014509000	1820 DeVaca Wy		0	NONE	N			ADUs are rented at moderate prices								
098 029301500	1086 Ventura Av		0	NONE	N			ADUs are rented at moderate prices								
099 098500400	2856 Carmen Ave		0	NONE	N			ADUs are rented at moderate prices								
098 020101203	1641 Pine St		0	NONE	N			ADUs are rented at moderate prices								
097 014003100	1675 Vancouver Wy		0	NONE	N			ADUs are rented at moderate prices	1000							
099 019103600	48 Glacier Pl		0	NONE	N			ADUs are rented at moderate prices								
098A041400804	482 School St		0	NONE	N			ADUs are rented at moderate prices								
099 133802100	3981 Loch Lomand Wy		0	NONE	N			ADUs are rented at moderate prices								
099A292703100	5639 Moreland Way		0	NONE	N			ADUs are rented at moderate prices								
099 019100600	434 Yosemite Dr		0	NONE	N			ADUs are rented at moderate prices								
099 026000603	165 Stanley		0	NONE	N			ADUs are rented at moderate prices								
097 010200200	727 McLeod St		0	NONE	N			ADUs are rented at moderate prices								
099 031307900	888 Laguna St		0	NONE	N			ADUs are rented at moderate prices								
098 025100701	1949 Chestnut St		0	NONE	N			ADUs are rented at moderate prices								
098 025100701	1951 Chestnut St		0	NONE	N			ADUs are rented at moderate prices								
099B520602500	1639 Pinehurst Ct		0	NONE	N			ADUs are rented at moderate prices								
099 030113100	1007 Mocho St		0	NONE	N			ADUs are rented at moderate prices								
097 003900600	486 N St		0	NONE	N			ADUs are rented at moderate prices								
098 022100400	608 N St		0	NONE	N			ADUs are rented at moderate prices								
097 015101102	1752 Bella Kristina Ln		0	NONE	N											
097 015101102	1758 Bella Kristina Ln		0	NONE	N											
097 015101102	1762 Bella Kristina Ln		0	NONE	N											
097 015101102	1766 Bella Kristina Ln		0	NONE	N											
097 015101102	1774 Bella Kristina Ln		0	NONE	N											
097 015101102	1782 Bella Kristina Ln		0	NONE	N											
097 010200704	2750 Eighth St		0	NONE	N											
097 008501802	227 Holmes St		0	NONE	N											

Table A2

Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier				Streamlining	Infill	Housing with Financial Assistance and/or Deed Restrictions		Housing without Financial Assistance or Deed Restrictions	Term of Affordability or Deed Restriction	Demolished/Destroyed Units			Density Bonus			
			13	14	15	16	17	18	19	20			21	22	23	24
Current APN	Street Address	Project Name*	How many of the units were Extremely Low Income?	Please select the streamlining provision the project was APPROVED pursuant to. (may select multiple)	Infill Units? Y/N*	Assistance Programs for Each Development (may select multiple - see instructions)	Deed Restriction Type (may select multiple - see instructions)	For units affordable without financial assistance or deed restrictions, explain how the locality determined the units were affordable (see instructions)	Term of Affordability or Deed Restriction (years) (if affordable in perpetuity enter 1000)*	Number of Demolished/Destroyed Units	Demolished or Destroyed Units	Demolished/Destroyed Units Owner or Renter	Total Density Bonus Applied to the Project (Percentage Increase in Total Allowable Units or Total Maximum Allowable Residential Gross Floor Area)	Number of Other Incentives, Concessions, Waivers, or Other Modifications Given to the Project (Excluding Parking Waivers or Parking Reductions)	List the incentives, concessions, waivers, and modifications (Excluding Parking Waivers or Parking Modifications)	Did the project receive a reduction or waiver of parking standards? (Y/N)
			24							0						
097 010201200	2617 Seventh St		0	NONE	N											
099 032503200	1777 Cordoba St		0	NONE	Y											
905 001000403	Triad Dr	Triad East	0	NONE	Y		Other	Per INSP; SB 330 application submitted					0.0%			
097 013600206	218 Church St		0	NONE	Y											

Jurisdiction	Livermore	
Reporting Year	2023	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	01/31/2023 - 01/31/2031

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Housing Element Implementation

This table is auto-populated once you enter your jurisdiction name and current year data. Past year information comes from previous APRs.

Please contact HCD if your data is different than the material supplied here

Table B
Regional Housing Needs Allocation Progress
Permitted Units Issued by Affordability

		1		2									3	4
Income Level		**RHNA Allocation by Income Level**	**Projection Period - 06/30/2022-01/30/2023**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**Total Units to Date (all years)**	**Total Remaining RHNA by Income Level**
Very Low	Deed Restricted	1,317	-	-	-	-	-	-	-	-	-	-	-	1,317
	Non-Deed Restricted		-	-	-	-	-	-	-	-	-	-		
Low	Deed Restricted	758	-	-	-	-	-	-	-	-	-	-	-	758
	Non-Deed Restricted		-	-	-	-	-	-	-	-	-	-		
Moderate	Deed Restricted	696	-	1	-	-	-	-	-	-	-	-	80	616
	Non-Deed Restricted		34	45	-	-	-	-	-	-	-	-		
Above Moderate		1,799	21	21	-	-	-	-	-	-	-	-	42	1,757
Total RHNA		**4,570**												
Total Units			**55**	**67**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**122**	**4,448**

Progress toward extremely low-income housing need, as determined pursuant to Government Code 65583(a)(1).

		5		2									6	7
		Extremely low-Income Need		**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**Total Units to Date**	**Total Units Remaining**
Extremely Low-Income Units*		659		-	-	-	-	-	-	-	-	-	-	659

*Extremely low-income houisng need determined pursuant to Government Code 65583(a)(1). Value in Section 5 is default value, assumed to be half of the very low-income RHNA. May be overwritten.

Note: units serving extremely low-income households are included in the very low-income RHNA progress and must be reported as very low-income units in section 7 of Table A2. They must also be reported in the extremely low-income category (section 13) in Table A2 to be counted as progress toward meeting the extremely low-income housing need determined pursuant to Government Code 65583(a)(1).

Please note: For the last year of the 5th cycle, Table B will only include units that were permitted during the portion of the year that was in the 5th cycle. For the first year of the 6th cycle, Table B will only include units that were permitted since the start of the planning period. Projection Period units are in a separate column.

Please note: The APR form can only display data for one planning period. To view progress for a different planning period, you may login to HCD's online APR system, or contact HCD staff at apr@hcd.ca.gov.

Jurisdiction	Livermore	
Reporting Year	2023	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	01/31/2023 - 01/31/2031

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table C
Sites Identified or Rezoned to Accommodate Shortfall Housing Need and No Net-Loss Law

Project Identifier				Date of Rezone	RHNA Shortfall by Household Income Category				Rezone Type	Sites Description							
1				2	3				4	5	6	7	8		9	10	11
APN	Street Address	Project Name+	Local Jurisdiction Tracking ID+	Date of Rezone	Very Low-Income	Low-Income	Moderate-Income	Above Moderate-Income	Rezone Type	Parcel Size (Acres)	General Plan Designation	Zoning	Minimum Density Allowed	Maximum Density Allowed	Realistic Capacity	Vacant/Nonvacant	Description of Existing Uses
Summary Row: Start Data Entry Below																	

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Jurisdiction	Livermore		
Reporting Year	2023	(Jan. 1 - Dec. 31)	

Table D

Program Implementation Status pursuant to GC Section 65583

Housing Programs Progress Report
Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.

1 Name of Program	2 Objective	3 Timeframe in H.E	4 Status of Program Implementation
Program 1.1.1: Residential Sites Inventory A) If a site included in the residential sites inventory is developed with nonresidential uses or with fewer units than identified, verify that the sites inventory maintains sufficient capacity to meet the City's RHNA. If it does not, identify additional sites/units to satisfy the RHNA, that will prevent displacement in low resource areas or facilitate access to moderate and high resource areas. This is an ongoing program that the City has already been implementing.	Maintain adequate sites to meet the City's RHNA	When development of Housing Element sites occurs	Complete. In 2023, the City did not develop any residential sites with non-residential units or with fewer units than required by the zoning designation.
Program 1.1.1: Residential Sites Inventory B) Maintain an online map on the City's website of vacant residential acreage to assist developers with identifying land suitable for residential development throughout the city. The map could indicate current zoning and public facilities and services to these sites. The map could also include land suitable for affordable development, based on the allowed density, in moderate and high resource areas to facilitate new opportunities and expanded housing mobility opportunities.	Assist at least 3 interested developers annually to identify suitable land for residential development.	Create map at the time of new Housing Element adoption. Update annually thereafter throughout the planning period.	Complete. Residential site inventory maps were created as part of the Housing Element Update for the 2023-2031 cycle, adopted by City Council on March 13, 2023. To assist developers, the Housing Element and the site inventory maps identify vacant and underutilized sites in the Downtown Specific Plan Area, Arroyo Vista Neighborhood Plan, and Isabel Neighborhood Specific Plan, as well as sites in other areas of the city outside of specific plan areas.
Program 1.1.1: Residential Sites Inventory C) Proactively identify areas to meet future RHNA allocations as part of the comprehensive General Plan Update.	Ensure General Plan and zoning consistency to accommodate development of 1,317 very low-, 758 low-, 696 moderate- and 1,799 above moderate-income housing units.	By 2025 with the adoption of the General Plan Update	Ongoing. The City is preparing a comprehensive General Plan Update that has identified several Focus Areas where land use changes could occur, including those areas that can accommodate development (or redevelopment) of residential uses to help meet RNHA allocations.
Program 1.1.1: Residential Sites Inventory D) Following future amendments to the General Plan's Safety Element, ensure consistency with the Housing Element, including the sites inventory.	n/a	As needed	Ongoing. The Safety Element was updated in 2018 to include a new goal, objectives and policies relating to and supporting the Tri-Valley Hazard Mitigation Plan, which will be approved by City Council in spring 2024. The goal, objectives and policies address natural hazard mitigation and protecting people, property and the environmental from natural hazards. In 2023, the City continued its comprehensive General Plan Update which will include updates to the Safety Element. All updates will be reviewed for consistency with the adopted Housing Element.

Table D Program Implementation Status pursuant to GC Section 65583 **Housing Programs Progress Report** Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
1	**2**	**3**	**4**
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 1.2.1: General Plan and Specific Plans A) Continue to update and amend the General Plan as needed and appropriate to provide a range of housing types (including missing middle housing), densities, and affordability levels.	n/a	As projects are proposed; reviewed annually	Ongoing. The City is preparing a comprehensive General Plan Update that will update policies and programs to streamline and facilitate housing development for a variety of housing types, densities, and income levels. In 2023, the City studied a variety land use alternatives within identified focus areas that could support residential land use designations in a range of densities.
Program 1.2.1: General Plan and Specific Plans B) Continue to update and amend the Downtown Specific Plan as needed and appropriate to facilitate downtown revitalization, the provision of affordable housing, and mixed-use development to facilitate income integration, housing mobility opportunities and access to transit, resources, and amenities**.**	Approve or maintain the potential for 37 moderate and 141 lower-income housing units in the DSP area.	As projects are proposed; reviewed annually	Ongoing. Downtown Specific Plan amendments to facilitate the redevelopment plan were adopted City Council in 2020. The City Council approved the entitlements for the affordable workforce housing in 2021. In 2023, the Legacy apartment project began leasing its units, which inlcude a total of 222 moderate to above moderate units across two buildings. In addition, the City continued efforts to move the approved Eden Afforable housing project through litigation in 2023. The Eden Housing project would provide 130 affordable units Downtown.
Program 1.2.1: General Plan and Specific Plans C) Continue to update and amend the Isabel Neighborhood Specific Plan as needed and appropriate to facilitate a complete, income-integrated, transit- oriented community that promotes housing mobility opportunities.	Approve or maintain the potential for 1,570 lower-income and 1,753 above moderate-income units in the INSP area.	As projects are proposed; reviewed annually	Ongoing. City Council adopted the Isabel Neighborhood Specific Plan in 2020. The City approved entitlements for 172 units in the INSP in 2023, and accepted applications for an additional three projects that are proposing a collective total of over 1,600 residential units.
Program 1.2.1: General Plan and Specific Plans D) Continue area planning efforts for the Southfront Priority Development Area (PDA) surrounding the future Southfront Valley Link station. Revise the General Plan designations and zoning accordingly to allow for mixed-income residential transit-oriented development.	Up to 7,500 housing units to facilitate income integration and housing mobility opportunities.	This area is a Focus Area in the General Plan Update, which will be completed by 2025. Complete any subsequent planning efforts by 2030.	Ongoing. As part of the comprehensive General Plan Update, this area has been renamed and is referred to as the Midtown Focus Area. In 2023, the City made progress on the preparing a land use alternative scenario for this area which has the highest concentration of housing and mix of housing types and densities of the General Plan Focus Areas.
Program 1.3.1: Development Code Amendments A) Continue to facilitate development of Accessory Dwelling Units (ADUs) by maintaining standards that are consistent with State law. This includes allowing ADUs in all zoning districts where single-family and multifamily residential dwellings are allowed and creating a resource center on the City's website that connects community members to materials and programs like the CalHFA ADU grant program.	325 ADUs during the 6th Cycle Projection Period; encouraging at least half of these to be in neighborhoods dominated by single- family development to promote housing mobility opportunities.	The City will begin a comprehensive Development Code Update in January 2023. Year one of the three-year program includes updates for consistency with State legislation. The City will update the ADU ordinance by December 2023, then every two years as needed to comply with current state law.	Ongoing. The City waives certain development fees for ADUs consistent with State ADU law. In 2023, the City issued new building permits for 49 ADUs and issued 44 certificates of occupancy (completed) ADUs; the majority of which are located within existing single family neighborhoods.

Table D

Program Implementation Status pursuant to GC Section 65583

Housing Programs Progress Report

Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.

1	2	3	4
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 1.3.1: Development Code Amendments B) Monitor ADU construction and affordability levels to determine whether the rate is on track to meet target numbers anticipated in this Housing Element. Implement additional actions, such as additional outreach, resources, or incentives, if targets are not met. See Program 1.4.1.D.	58 ADU building permits between June 30th, 2022, and the end of 2024, with at least 30 in predominantly single-family neighborhoods.	Annually, starting in January 2024 as part of the 2023 Housing Annual Progress Report	Ongoing. The City waives certain development fees for ADUs consistent with State ADU law. In 2023, the City issued new building permits for 49 ADUs and issued 44 certificates of occupancy (completed) ADUs; the majority of which are located within existing single family neighborhoods.
Program 1.3.1: Development Code Amendments C) Continue to allow mobile and manufactured homes that meet State and City codes, as well as the City's design review requirements, in all residential districts.	40 new mobile or manufactured homes over the next 8 years, encouraging at least 15 in high resource areas.	Ongoing as the City assists applicants at the Permit Center	Ongoing. The City issues permits for several manufactured units each year, typically for Accessory Dwelling Units.
Program 1.3.1: Development Code Amendments D) Establish standards for smaller unit types, such as tiny homes and single room occupancies to meet the housing needs of lower-income households and other populations at risk of displacement.	20 small unit types over the next 8 years, encouraging at least 10 in high resource and single-family housing dominated areas, to prevent displacement and facilitate housing mobility opportunities.	By December 2024 as part of the comprehensive Development Code Update.	Ongoing. The City began a comprehensive Development Code Update in 2023 which will consider additional policies for expanding opportunities for these housing types as code amendments and new objective design standards are drafted. The Development Code Update is expected to be completed in phases, with the first phase addressing amendments necessary to comply with new state housing laws by December 2024. The remainder of the comprehensive Development Code Update, including objective design standards, is anticipated to be completed by summer 2026.
Program 1.3.1: Development Code Amendments E) Establish standards consistent with Senate Bill 9 to allow ministerial two-unit residential developments and lot splits in single-family zones. The City currently allows development of residential units and lot splits in compliance with Senate Bill 9. The City will encourage homeowners on large lots in predominantly single-family neighborhoods to consider SB 9 as an opportunity to introduce middle-density housing and the associated benefits.	10 units through SB 9 infill development, encouraging construction in large- lot, single-family neighborhoods to promote housing mobility opportunities through increased density.	By December 2023 as part of the comprehensive Development Code Update; Provide informational materials on the City's website on the SB 9 process within 2 months of establishing standards	In progress. The City began a comprehensive Development Code Update in 2023, and has prepared draft code amendments to respond to all updates to State housing laws, including SB 9. In addition, the City established an informational handout to accompany the general application for applicants applying for development and/or lot splits pursuant to SB 9. This informational handout is posted to the City's website and updated as needed in response to changing State law. The Development Code Update is expected to be completed in phases, with the first phase addressing amendments necessary to comply with new state housing laws by December 2024. The remainder of the comprehensive Development Code Update, including objective design standards, is anticipated to be completed by summer 2026.
Program 1.3.1: Development Code Amendments F) Establish Objective Design Standards to facilitate streamlined project permitting.	n/a	By December 2023 as part of the comprehensive Development Code Update	In progress. The City began preparation of a comprehensive Development Code Update in 2023, which will establish objective design standards to streamline project permitting. The Development Code Update is expected to be completed in phases, with the first phase addressing amendments necessary to comply with new state housing laws by December 2024. The remainder of the comprehensive Development Code Update, including objective design standards, is anticipated to be completed by summer 2026.

Table D Program Implementation Status pursuant to GC Section 65583 **Housing Programs Progress Report** Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
1	**2**	**3**	**4**
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 1.3.1: Development Code Amendments G) Remove barriers to residential development of small properties. The specifics of these changes will be discussed when the Development Code Update gets underway in 2023 but could include adjustments to fees and requirements for setbacks, open space, parking, etc. As part of this work, the City will consider a more streamlined review process for smaller projects (see Program 1.4.1).	n/a	By December 2023 as part of the comprehensive Development Code Update	In progress. The City continues to explore options to remove barriers to the development of small properties as part of the General Plan and Development Code Updates in progress.
Program 1.4.1: Reduce Governmental Constraints A) Identify opportunities to streamline permitting processes, including ministerial approvals and electronic application submittals and review. See also Program 1.3.1.G. The City is currently BETA testing electronic submittal in its Accela software permit tracking system with plans to accept electronic submittals. The new electronic public portal should be ready for electronic submittal of all projects in early 2023.	n/a	Electronic submittal system should be operational by early 2023. Additional opportunities for ministerial approval will be completed by December 2024 as part of the Development Code Update. See also Program 1.3.1.G.	In progress. The City began a comprehensive Development Code Update in 2023, and will establish pathways for ministerial approvals. Also in 2023, the City began testing and training staff on DigEplan software for electronic submittal of applications, which will facilitate digital project intake and further streamline the review process.
Program 1.4.1: Reduce Governmental Constraints B) Establish standards to specify SB 35 and SB 330 streamlining approval processes and standards for eligible projects to promote provision of affordable housing.	n/a	By December 2023 as part of the comprehensive Development Code Update.	In progress. The City began a comprehensive Development Code Update in 2023, which includes amendments to codify all updates to State housing laws, including SB 35 and SB 330, as well as develop local procedures for their implementation. Informational handouts will be developed to accompany these applications. In addition, the City's website includes a dedicated page called, "How to Submit an Application" with application materials and detailed instructions, including SB 35 and SB330).

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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 1.4.1: Reduce Governmental Constraints C) Monitor development fees to ensure they are reasonable and do not unduly constrain development while protecting the quality, health, and public safety of the community. Analyze the design review fee and all other fees required for multifamily development and reduce them if found to be a constraint. This would include adjusting fees for smaller unit types like ADUs/JADUs, tiny homes, and other missing middle housing. The analysis process will include meeting with multifamily developers/applicants to get their input regarding constraints associated with fees.	n/a	Following completion of the General Plan Update and year two of the Livermore Development Code Update in December 2024, the Community Development Department will engage the community and stakeholders and conduct a comprehensive development impact and entitlement fee update by September 2025. Specific steps for the first analysis and update during the planning period are outlined below. As part of this process, the City will examine development fees as they relate to housing to ensure they are not a barrier to new housing. • The General Plan update process explores and evaluates different land use patterns and types. • The land use evaluation will identify necessary infrastructure needs: transportation improvements, water, sewer, stormwater, parks, schools, and library services, etc. • As part of General Plan implementation, the City will identify total costs to construct new and upgrade existing systems. • Following adoption, the City will conduct fee studies to determine new infrastructure costs per land uses type necessary to cover costs over the 20-year time horizon of the General Plan, 2045. Timeline: • Meet with developers/applicants by December 2024. • Complete analysis of the design review fee and other multifamily fees by June 2025. The analysis will include a nexus study conducted by an outside consultant. • City Council review and adoption by September 2025. This timeline makes sense for Livermore because the City is comprehensively updating its General Plan, which is anticipated to be adopted in 2024/2025. Subsequently, the City will do the analysis and development fee update described above to reflect the new General Plan land use map and corresponding infrastructure needs.	Ongoing. The City continues to use various practices to offset potential negative effects of development impact fees on housing development and cost. The City updated its development fees in 2023 to reflect cost of living changes, in accordance with local ordinance. In addition, the City has begun a comprehensive General Plan and Development Code Update that explores the different land use scenarios and will evaluate infrastructure needs to facilitate further economic analysis.
Program 1.4.1: Reduce Governmental Constraints D) Continue to encourage the development of accessory dwelling units by waiving certain development impact fees. Promote the availability of these incentives in high resource areas to expand housing mobility opportunities for lower-income households**.**	Promote the development of 325 ADUs over the planning period, targeting at least 10 percent of those in high resource areas. (See Program 1.3.1.A)	Ongoing; add information on incentives to the City's website by December 2023, updating as needed, and mailing information to homeowners in high resource areas in January 2024 and every other year thereafter.	Ongoing. The City waives certain development fees for ADUs consistent with State ADU law. In 2023, the City issued new building permits for 49 ADUs and issued 44 certificates of occupancy (completed) ADUs.

Table D Program Implementation Status pursuant to GC Section 65583 **Housing Programs Progress Report** Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 1.4.1: Reduce Governmental Constraints E) Create user-friendly, accessible, and multi-lingual information guides about standards and review processes for residential projects (ADUs, SB 9 projects, SB 35 and SB 330 streamlining, etc.) to improve housing mobility. Make this information available on the City's website, at the Permit Center, and in local gathering places in areas of need such as the Rincon Branch library.	n/a	Make guides available on the City's website by December 2023. Update on an ongoing basis as needed.	Ongoing. Informational handouts for streamlining ADUs and SB9 are available on the City's website to help assist applicants during the application process. The City is developing additional informational guidance for SB 35 and SB 330 and will continue to update the materials as necessary to comply with State housing laws. In addition, the City's website includes a dedicated page called, "How to Submit an Application" with application materials and detailed instructions, including SB 35 and SB330).
Program 1.4.1: Reduce Governmental Constraints F) Improve internal systems for collecting, tracking, and analyzing housing project data to better understand housing development trends in Livermore and streamline annual State reporting requirements.	n/a	By December 2024	Ongoing. The City continues to use Accela permit tracking software to record and monitor development applications. In addition, in 2023, the City also began testing a new software platform, DigEplan, to streamline document management and facilaite digital review of development applications.
Program 1.5.1: Universal Design A) Update the City's residential design guidelines and standards to encourage "visitability" and universal design features in new homes and accessory dwelling units.	10 universal design housing units to facilitate accessibility for persons with disabilities and seniors; encouraging at least 5 of these units to be located near transit stations and services.	Update the City's Design Standards and Guidelines after completion of the General Plan Update and Development Code Update in December 2025.	Ongoing. The City intends to update the residential design guidelines and standards as part of the comprehensive Development Code update.
Program 1.5.1: Universal Design B) Expand consumer awareness by providing information on universal design features at the City's Permit Center and develop resource information for the City's Permit Center website.	n/a	Make information available on the City's website by December 2024.	Ongoing. The City has not yet developed Livermore-specific resources on universal design features, but provides information and guidance upon request at the Permit Center.
Program 1.5.1: Universal Design C) Continue to implement Building Code accessibility requirements that apply to projects that incorporate universal design features to promote integrated housing accessible to seniors and persons with disabilities.	See Program 1.5.1A	Ongoing as the City assists applicants at the Permit Center and through plan checks.	Ongoing. The City has not yet developed Livermore-specific resources on universal design features, but provides information and guidance upon request at the Permit Center.

Table D Program Implementation Status pursuant to GC Section 65583 **Housing Programs Progress Report** Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 1.5.2: Licensed Community Residential Care Facilities A) Consistent with State law, continue to allow Residential Care Facilities serving 6 or fewer persons in all residential districts as a means of providing housing for special needs groups. Update the Development Code to allow this size of facility in additional zoning districts where required by State law.	n/a	By December 2023 as part of the comprehensive Development Code Update.	Ongoing. The Livermore Development Code continues to allow licensed community residential care facilities in the residential zoning districts.
Program 1.5.2: Licensed Community Residential Care Facilities B) To affirmatively promote more inclusive communities, the City will update the Development Code requirements for Residential Care Facilities serving 7 or more persons to permit them as a residential use subject to the same standards that apply to other residential uses of the same type in the same zone.	n/a	By December 2023 as part of the comprehensive Development Code Update.	In progress. The City intends to update the requirements for Residential Care Facilities upon completion of the comprehensive Development Code Update.
Program 1.5.3: Special Housing Needs A) Work with housing providers to ensure that special housing needs are addressed to reduce displacement risk for large families, female-headed households, college students, and single-parent households with children, through a combination of regulatory incentives, zoning standards, affordable housing programs described in Goal 3, rehabilitation and neighborhood improvement efforts described in Goal 4, and supportive services programs. The City will also continue to encourage the production of units with three or more bedrooms for large families in moderate- and high-resource areas to facilitate housing mobility opportunities for lower- income households and households with special needs.	Support the creation or rehabilitation of at least 100 units of housing for people and families with special housing needs over the planning period through development agreements with Eden Housing and the Livermore Housing Authority to develop projects such as Downtown Livermore Apartments.	Ongoing and evaluate opportunities annually including meeting with housing providers.	Ongoing. In FY 2022-2023, the City has supported programs that expand the supply of housing units for families with special needs through partnerships with Eden Housing and Livermore Housing Authority on projects such as Downtown Livermore Apartments. The Downtown Livermore Apartments is currently in the financing stage. The City has also provided anti-displacement support through partnerships with Centro Legal for eviction moratorium trainings, and workshops. The City has partnered with ECHO Housing to provide fair housing and tenant protection services to Livermore residents.

Table D Program Implementation Status pursuant to GC Section 65583 **Housing Programs Progress Report** Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
1	**2**	**3**	**4**
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 1.5.3: Special Housing Needs B) Work with housing providers to ensure that special housing needs are addressed to reduce displacement risk for persons with physical, behavioral, and developmental disabilities through a combination of regulatory incentives, zoning standards, affordable housing programs described in Goal 3, rehabilitation and neighborhood improvement efforts described in Goal 4, and supportive services programs. The City will also continue to encourage the production of units with special adaptations for people with disabilities, per California Title 24 standards.	Support the creation or rehabilitation of at least 20 units of permanent supportive housing for people with disabilities over the planning period on sites throughout the City by providing funding.	Ongoing and evaluate opportunities annually including meeting with housing providers.	Ongoing. In FY 2022-2023, the City has provided grants and supported programs that expand the supply of housing units for individuals with disabilities through partnerships with MidPen, Tri-Valley REACH, and various community non-profit organizations. In May 2023, MidPen welcomed new residents at the official opening for Avance, 43-units of affordable, services-enriched housing for persons with developmental disabilities. The City also assisted Tri-Valley REACH with the acquisition and expansion of a four bedroom home, and the rehabilitation of a 6-bedroom group home for extremely low-income persons with developmental disabilities.
Program 1.5.3: Special Housing Needs C) Work with housing providers to ensure that special housing needs are addressed to reduce displacement risk for seniors through regulatory incentives, zoning standards, affordable housing programs described in Goal 3, rehabilitation and neighborhood improvement efforts described in Goal 4, and supportive services programs. The City will also continue to encourage the production of senior housing, including assisted living facilities and application of universal design standards in new housing units.	Support the creation or rehabilitation of at least 100 units of housing for seniors over the planning period through development agreements with Satellite Affordable Housing Associates and Interfaith Housing for projects such as Pacific Avenue Senior Apartments.	Ongoing and evaluate opportunities annually.	In FY 2022-2023, the City continuously supported grants and programs that expand the supply of housing units for seniors, such as the Senior Support Program of the Tri-Valley and Community Resources for Independent Living (CRIL), and encourage seniors and disabled persons to age in place and to facilitate independent living. The Pacific Avenue Senior Apartments project, which will provide 140 units for seniors, secured additional capital and operating resources in preparation for a tax credit financing application in 2024. The project will set aside 24 units for seniors experiencing homelessness who need mental health services, as well as funding supportive services to help residents stabilize and age in place.
Program 1.5.3: Special Housing Needs D) Support “aging in place” through community design, partnering with organizations that provide support services, and encouraging accessibility improvements to rental housing.	Support the creation of at least 15 accessible rental units through production of new units that meet ADA guidelines or modification of existing units that do not currently meet ADA guidelines.	Ongoing and evaluate opportunities annually.	Ongoing. The City continuously seeks partnerships with non profit services agencies to identify opportunities to make housing units for seniors and persons with disabilities more accessible such as the Senior Support Program of the Tri-Valley and Community Resources for Independent Living (CRIL), and encourage seniors and disabled persons to age in place and to facilitate independent living.

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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 1.5.3: Special Housing Needs E) Work with housing providers to ensure that special housing needs are addressed to reduce displacement risk for extremely low-income unhoused individuals and families through a combination of regulatory incentives, zoning standards, affordable housing production and preservation programs described in Goal 3, and supportive services programs. The City will also continue to encourage the production of smaller units to address the shortage of affordable units for single adults experiencing homelessness, including single-room occupancy units in areas accessible to support services and transit opportunities.	See Program 1.3.1. D Support the creation of at least 30 new units of permanent supportive housing for people experiencing homelessness over the planning period through funding agreements with developers like Housing Consortium of the East Bay for projects such as Vineyard 2.0 and supportive shared housing expansion.	Ongoing and evaluate opportunities annually.	Ongoing. In December 2023, the Vineyard project opened its doors to 24 extremely and very low-income, formerly homeless households in need of permanent supportive housing. The project also offers a food pantry, and a homeless shelter that will operate 7 days a week in winter conditions. The homeless Shelter will be staffed with the Housing Navigator, which will assist people at risk or experiencing homelessness. The units are a combination of studios and one-bedroom units.
Program 1.5.3: Special Housing Needs F) Increase the supply of housing affordable to farmworkers, many of whom are lower income. Review the Development Code for compliance with the state Employee Housing Act (Health & Safety Code Sections 17021.5, 17021.6, and 17021.8). If needed to comply with the Act, make amendments to allow housing for 6 persons or less in residential zones in the same way residential structures are allowed (Section 17021.5). Also, if needed, allow for employee housing of no more than 12 units or 36 beds as an agricultural use, and permit in the same manner as other agricultural uses in the same zone (Section 17021.6). Finally, make amendments if needed to address the requirements of Section 17021.8 which requires ministerial approval of certain farmworker housing projects that meet the criteria in that section.	Facilitate construction of farmworker housing through development code amendments (see Program 1.3.1).	By 2024	In progress. The City will ensure compliance with the State Employee Housing Act upon completion of the comprehensive Development Code Update.

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1	**2**	**3**	**4**
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 1.5.3: Special Housing Needs G) Incorporate the needs of farmworkers and their families into City affordable housing programs. The City may also support providers of farmworker housing in accessing state and federal funds.	Prepare a brief on farmworker housing solutions that is developed with direct input from farmworkers, community organizations like La Familia, and employers like Wente Vineyards and implement brief recommendations by December 2026. The brief will also identify opportunities in the South Livermore Valley Specific Plan and other rural residential and agricultural areas.	By December 2026	To be implemented before the end of the 2026 program period.
Program 1.5.3: Special Housing Needs H) Require affordable housing developers to partner with trusted community partners to coordinate outreach about affordable housing opportunities and to assist farmworkers and their families in applying for affordable housing.	Adopt affordable rental development guidelines that include outreach requirements for farmworkers.	Within 1 year of Housing Element adoption	Ongoing, The City is developing affordable rental standards and requirements which will include farmworker outreach. Implementation of the adopted guidelines is expected in 2024.
Program 1.5.3: Special Housing Needs I) Conduct targeted and multilingual outreach strategies described in Program 3.3.1 for groups with special housing needs to increase access to City housing programs	See Program 3.3.1	Ongoing; conduct outreach at least every other year, beginning in 2024	Ongoing. The housing outreach plan has started in 2023 targeting various groups within the City to access housing programs.
Program 1.5.3: Special Housing Needs J) Update the City's findings for Reasonable Accommodation to remove the following findings: 1) Whether there are alternatives to the requested waiver or exception that could provide similar benefits to the applicant with less potential detriment to surrounding owners and occupants or to the general public and 2) Physical attributes of the property and structures to ensure the findings are objective and consistent with fair housing laws.	n/a	Update the Reasonable Accommodation findings in the City's Development Code by 2024.	Ongoing. The Livermore Development Code outlines procedures to address reasonable accommodation (Chapter 9.06).
Program 2.1.1: Monitor Infrastructure Needs A) Continue to analyze infrastructure needs and capacity to balance residential growth with the provision of adequate infrastructure and services.	n/a	As part of the General Plan Update, anticipated to be completed in December 2025, then every three years	Ongoing. The City has begun a comprehensive update to the General Plan which will evaluate infrastructure needs based on the approved land use scenario. In addition, the 2023-2028 CIP includes public infrastructure projects necessary to support the General Plan, Specific Plans, and Neighborhood Plan areas.

Table D Program Implementation Status pursuant to GC Section 65583 **Housing Programs Progress Report** Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 2.1.1: Monitor Infrastructure Needs B) Review infrastructure needs to support intensified development on infill sites within city limits and in the Downtown area; program improvements and upgrades into the City's CIP.	n/a	Bi-annually, as part of CIP updates	Ongoing. The City annually reviews and amends its CIP as needed to accommodate upgrades to support intensified development. The 2023-2028 CIP includes Downtown revitalization projects such as the Livermore Village Parking Garage, Flagpole Plaza and Downtown Streetscape Improvements, Downtown Sidewalk and Miscellaneous ADA Improvements, Downtown Landscape Rehabilitation, and Veterans Park.
Program 2.1.1: Monitor Infrastructure Needs C) Work with the City's water and sewer providers to ensure the availability and adequate capacity of water and wastewater systems to accommodate the housing needs during the planning period.	n/a	As part of the General Plan Update, anticipated to be completed in December 2025, and ongoing as projects are proposed	Ongoing. The City's 2023-2028 CIP includes improvements/upgrades to water and wastewater systems. The City continues to work with Cal Water Service Company during the review of projects within their service area.
Program 2.1.1: Monitor Infrastructure Needs D) Provide a copy of the Housing Element and any future amendments to the utility providers immediately after adoption.	n/a	After adoption of the Housing Element and as needed	Completed for the 2023-2031 Housing Element. In addition, the Housing Element is available on the City's website at: https://www.livermoreca.gov/departments/community-development/planning/housing-element.
Program 2.1.2: Support Mixed-Use, Transit-Oriented, and Equitable Development A) Promote lot consolidation to increase opportunities for mixed-use development.	n/a	Ongoing as the City assists applicants at the Permit Center, and as part of the Development Code Update	Ongoing. The City continues to explore funding sources to assist with lot consolidation and increase opportunities for mixed use development in, especially in the General Plan Focus Areas.
Program 2.1.2: Support Mixed-Use, Transit-Oriented, and Equitable Development B) Continue to require minimum residential densities in areas designated for transit- oriented, mixed-use development to ensure higher density in these areas and promote mixed-income neighborhoods. The City is already implementing trail connections as shown in the City's adopted Active Transportation Plan and frontage sidewalk and mobility curb cuts as a condition of approval on development projects. The City is planning to build some key trail connections as a city CIP project (e.g. Arroyo Road trail, Arroyo Las Positas Trail). Finally, the City is midway through an intensive public outreach process to design and implement improvements to the East Avenue corridor to improve safety and usability for pedestrians and bicyclists.	n/a	Ongoing as projects are reviewed. New residential zones adjacent to transit will be identified as part of the General Plan Update and Development Code Update, anticipated to be completed in December 2025	Ongoing. There are minimum residential densities in the Downtown area to support higher density housing in this mixed use, transit-oriented neighborhood. The City also adopted the Isabel Neighborhood Specific Plan to guide development around the proposed Valley Link station. The Plan calls for a mix of higher density housing types to take advantage of regional transit access and support Housing Element goals. In addition, the City's Development Code includes form-based zoning for two mixed-use sites that requires a minimum percentage of residential development.

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Program 2.1.2: Support Mixed-Use, Transit-Oriented, and Equitable Development C) Continue to use existing density incentives and develop additional incentives to promote mixed-use and more intense residential development near transit to facilitate income integration.	n/a	Ongoing; identify additional incentives by December 2025 as part of the Development Code Update, advertise to the development community by May 2027 and annually thereafter	Ongoing. The City continues to explore opportunities for promoting high density residential development. For example, the City adopted the Isabel Neighborhood Specific Plan (INSP), which established a goal for 25 percent of the approximately 4,095 new housing units to be offered at affordable prices/rents, with a project-level minimum of 20 percent. The INSP provides flexible development standards and parking requirements, allows for master planning across adjacent blocks, and facilitates environmental streamlining, as incentives to encourage mixed-use, transit-oriented development. In 2023, the City entitled a project in the INSP that would include 172 residential units within 0.25 miles of the planned Valley Link Transit Station.
Program 2.1.2: Support Mixed-Use, Transit-Oriented, and Equitable Development D) Update existing community benefit and/or other land value recapture strategies such as the Human Services Facility Fee to increase proximity to services and other opportunities throughout the city to improve place- based strategies toward community revitalization.	Update at least one community benefit strategy within 5 years of Housing Element adoption.	Within 5 years of Housing Element adoption	Ongoing. In 2023, the City identified a consultant to complete an update of the Human Services Facility Fee.
Program 3.1.1: Inclusionary Housing Ordinance A) Continue to implement the inclusionary housing ordinance and continue to require developers to identify the location of inclusionary units. Work to approve inclusionary units in moderate- and high-resource areas to facilitate housing mobility opportunities for lower- and moderate-income households and encourage partnerships between supportive housing providers and developers to implement inclusionary housing requirements.	Produce at least 100 affordable units for low- and moderate- income households through the inclusionary housing ordinance, encouraging at least half of these units to be integrated into low-density and single-family dominated neighborhoods, or in high resource areas.	Commence immediately and engage developers as new projects are submitted at least annually	Ongoing. In 2023, the City executed Low Income Housing Agreements with developers of three new residential, for-sale projects securing 92 affordable units for low, median and moderate income buyers in the future. These developments include the DeNova Homes Triad West (22 units); Shea Homes at Portola (18 units); and Trumark Homes Arroyo Vista (52 units).
Program 3.1.1: Inclusionary Housing Ordinance B) Implement accessible and multilingual communication and outreach strategies for potential tenants and owners of inclusionary units.	Adopt policies and procedures with inclusive outreach and marketing standards.	Within 1 year of Housing Element Adoption	Ongoing, The City is developing affordable rental standards and requirements which will include accessible and multilingual outreach strategies and will update existing affordable homeownership guidelines. Implementation of the adopted and revised guidelines is expected in 2024.

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1	**2**	**3**	**4**
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 3.1.2: Density Bonuses and Incentives A) Continue to ensure new residential projects are consistent with current State Density Bonus regulations and continue to encourage the use of both the State Density Bonus Program and the City's density incentives for affordable and senior housing. In addition, update the local density bonus regulations as needed during the planning period for consistency with State Density Bonus law. The City reviews Density Bonus applications in compliance with state law even if an update to the local ordinance is pending.	125 lower income units, encouraging at least 50 in high resource areas to facilitate housing mobility, and 30 in low resource areas to reduce potential for displacement.	Ongoing as projects are reviewed. Update local density bonus regulations by December 2023 as part of the Development Code Update. Continue to update local density bonus regulations within 1 year of substantive updates to State Density Bonus Law throughout the planning period so in the fall after the governor's signature deadline starting in Fall 2023.	Ongoing. The City updated Chapter 6.02.030 of the Livermore Development Code to be consistent with State Density Bonus regulations in December 2020. The City reviews requests for Density Bonuses during the development review process and will incorporate updates as needed as part of the comprehensive Development Code Update.
Program 3.2.1: Affordable Housing Fund A) Continue to administer the Low-Income Housing Impact and In-Lieu fees and use the Affordable Housing Fund to provide affordable and permanent supportive housing opportunities for extremely, very, and low income households and people with special housing needs, encouraging the use of these programs for projects in high resource areas, or in areas which reduce potential for displacement of residents in their existing neighborhoods.	Provide funding to at least three affordable housing projects that create homes for lower income households (20 percent to 80 percent of Area Median Income) and people with special housing needs in moderate or high resource areas.	Biannually through budget process	Ongoing. In 2023, the City continued to issue construction/permanent financing to HCEB for the Vineyard residential using Low Income Housing Funds, Human Services Facilities Fees and other pass-through sources. The City is working with other developers to secure financing to leverage City housing funds for the future affordable housing pipeline.
Program 3.2.1: Affordable Housing Fund B) Pursue additional funding sources and opportunities to leverage existing funding to increase resources for affordable housing programs.	Apply to an average of 1 funding source annually to support affordable housing programs	Ongoing. Submit applications for funding annually.	Ongoing. Applied to State HCD for Permanent Local Housing Allocation (PLHA) funding in December of 2022, and applying to the next available 2023 NOFA.
Program 3.2.1: Affordable Housing Fund C) Continue waiving applicable fees and provide funding to offset development fee costs for affordable units, prioritizing those that provide the greatest level of affordability and serve special needs households, to facilitate new affordable housing opportunities in moderate and high resource areas.	Waive fees or provide funding for the creation of 50 affordable units that create homes for lower income households and people with special housing needs in moderate or high resource areas.	By 2031	Ongoing. Eligible projects anticipated in 2024.

Table D Program Implementation Status pursuant to GC Section 65583 **Housing Programs Progress Report** Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
1	**2**	**3**	**4**
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 3.2.2: Support Acquisition and Development of New Sites for Affordable Housing A) In an effort to facilitate new affordable housing opportunities, utilize a variety of methods to increase the inventory of properties for future development of affordable and permanent supportive housing, including land dedication and acquisition of properties for conversion or construction of affordable units in opportunity-rich locations near transit, services, and key amenities.	Support a nonprofit partner's acquisition of at least one new affordable housing site during the planning period	Ongoing	Ongoing. In 2023, the City provided funding and supported programs that expand the supply of housing units for individuals with disabilities through partnerships with Tri-Valley REACH. Tri-Valley REACH acquired a townhouse property using a loan from the City's HOME funds, and expanded the unit to a 4-bedroom for shared, supportive housing for extremely low-income persons with disabilities, using a loan from the City's PLHA funding.
Program 3.2.2: Support Acquisition and Development of New Sites for Affordable Housing B) Continue to provide financial resources to nonprofit organizations like Housing Consortium of the East Bay (HCEB) and Bay Area Community Services to increase the existing affordable housing stock through market rate conversions and adaptive reuse, prioritizing units that both prevent displacement in low resource areas and facilitate access to moderate and high resource areas.	Support the acquisition and conversion of at least one market rate property to affordable housing within 2 years of Housing Element adoption.	Ongoing; coordination with nonprofit development partners to identify potential properties and facilitate development. Target one property within two years of Housing Element adoption	Ongoing. The City continues to coordinate with non-profit developers to try and identify market rate opportunities for conversion to affordable housing.
Program 3.2.2: Support Acquisition and Development of New Sites for Affordable Housing C) Evaluate and support alternative financing models to assist the acquisition or development of affordable middle- income housing, potentially in partnership with regional agencies.	As opportunities arise	Ongoing	Ongoing. The City continues to coordinate with affordable housing developers to identify market rate opportunities for conversion to affordable housing.

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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 3.2.2: Support Acquisition and Development of New Sites for Affordable Housing D) Develop affordable housing on City- owned sites in opportunity-rich locations in compliance with the Surplus Land Act. Development support for housing on City- owned sites shall include site preparation (e.g. environmental testing and community outreach), project funding via affordable housing loans, and land dedication. Projects on City-owned sites will provide housing affordable to persons and families of low- or moderate-income, at least 80% of the area of each property will be used for development of housing, and at least 40% of the housing units developed on each property will be affordable to households whose income is not greater than 60% area median income, of which at least one-half will be affordable to households of very low- income (50% AMI). Affordable housing developers for all City-owned sites will be selected through a competitive process that complies with the Surplus Land Act.	Support development of affordable housing on at least three City- owned sites, including Pacific Avenue, North M Street, and 2047 First Street.	Declare three City- owned sites exempt surplus land under Government Code Section 54221(f)(1)(A) by Spring 2023 and enter into agreements with nonprofit developers for all three sites by 2025. Prepare North M Street and 2047 First Street for development and select a nonprofit developer by 2024. Issue building permits by 2028 if all necessary financing is secured.	Ongoing. Staff will work to identify a developer for these sites by the end of 2024.
Program 3.2.3: Partner with Affordable Housing and Service Providers A) Coordinate and foster partnerships with nonprofit housing developers, community-based organizations, the Livermore Housing Authority, school district, and applicable federal, state, and regional agencies to facilitate the development of quality affordable and permanent supportive housing through projects such as the Leahy Square Supportive Housing program.	Launch the Leahy Square Supportive Services Program within 1 year of Housing Element adoption and create 12 units of supportive bridge housing for unhoused students and their families	Ongoing; as projects are proposed and opportunities arise.* Meet quarterly with the Livermore Housing Authority, school district, and nonprofit providers	Ongoing. The Family Homelessness Challenge Grant program, assisting homeless or at-risk of homelessness families of Livermore Unified School District kicked off in January 2023. Two families have been placed in units and are receiving Intensive Case Management Services (LifeSteps). The City holds quarterly meetings with the LHA, school district, and non-profit providers on an ongoing basis to develop the program further and extend the timeline of participation and supportive services to the unhoused families.
Program 3.2.3: Partner with Affordable Housing and Service Providers B) Continue to allow developers of affordable units to pay applicable development impact fees over time or delay payment until occupancy to help meet affordable housing targets.	n/a	Ongoing; as projects are proposed	Ongoing. As project applications are submitted, the City continues to encourage developers to meet inclusionary requirements and explore opportunties for affordable development incentives for very low and low income units.

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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 3.2.3: Partner with Affordable Housing and Service Providers C) Continue to meet regularly with developers to discuss incentive opportunities and provide technical assistance to promote affordable housing opportunities to prevent displacement in low resource areas and facilitate access to moderate and high resource areas	Target assistance and incentive efforts to accommodate RHNA of up to 1,317 very low- and 758 low-income units.	Ongoing and evaluate opportunities annually; reach out to developers by June 2024 then annually thereafter.	Ongoing. In 2022-2023 the City participated in Chamber of Commerce events that encourage the production of three or more bedroom units for families. Additionally, City staff met with several developers to discuss Inclusionary requirements and affordable development incentives for very low and low income units.
Program 3.2.3: Partner with Affordable Housing and Service Providers D) Support efforts to redevelop and create additional extremely low- and very low- income affordable units at existing affordable housing sites, such as Leahy Square, Vandenburgh Villa, Arbor Vista, Arroyo Mocho, as well as through producing accessory dwelling units at supportive shared housing sites such as Crane Avenue and others described in Section 2.4.	Facilitate production through funding and technical assistance of additional units on at least two existing affordable housing sites	2023-2030	Ongoing. As previously described, in 2023 the City assisted Tri-Valley REACH with the acquisition and rehabilitation of a supportive shared housing site for 4 extremely low-income individuals with disabilities. The project is to be completed in January of 2024 and will welcome it's new residents starting February 2024.The City has also continued to work with Livermore Housing authority on the California Family Homelessness Challenge Grant program that will provide supportive transitional housing for unhoused LVUSD students and their families with 3 families moved into the Leahy Square units.
Program 3.3.1:Public Outreach A) Implement multilingual communication and outreach strategies for City-funded affordable housing developments	Incorporate multilingual outreach standards into the City's guidelines for affordable rental projects	By December 2023	Ongoing. The City is working to develop rental guidelines and standards for developers to conduct multi-lingual outreach with various distribution avenues and anti-displacement policies. In 2023, the City reached out to small local businesses, larger employers, and School districts and increased affordable housing program participation and awareness. The City has also partnered with community providers such as Centro Legal to provide anti-displacement communications in Spanish, Simplified Chinese, Mandarin, and Tagalog.
Program 3.3.1:Public Outreach B) Provide translation services for Spanish, and other languages such as Farsi, Mandarin, and Cantonese as needed, at all public meetings and ensure all public materials are translated and made available.	n/a	By December 2023	Ongoing. As needed, Spanish, Cantonese, Mandarin, Tagalog, and Vietnamese languages are available for translation at public meetings. The written languages available are Chinese, Spanish, Tagalog, and Vietnamese.
Program 3.3.1:Public Outreach C) Participate in efforts to design a regional application system and housing search tools	Requirements for developers to list affordable units in a regional application system once the system is launched.	As regional opportunities arise and reach out to Alameda County and Bay Area Housing Finance Authority at least once a year	Ongoing. The City coordinates monthly with Alameda County and its other constituent cities to discuss regional housing issues, including the expansion of a centralized affordable housing application system.
Program 3.3.1:Public Outreach D) Affirmatively market affordable housing opportunities to members of protected classes outside of Livermore.	Adopt affordable rental development guidelines that include outreach requirements for protected classes outside of Livermore.	By December 2023	Ongoing, The City is developing affordable rental standards and requirements which will include outreach strategies that extend to protected classes outside Livermore. Implementation of the guidelines is expected in 2024.

Table D Program Implementation Status pursuant to GC Section 65583 **Housing Programs Progress Report** Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 3.4.1: Support for Low and Moderate Income Homeowners A) To facilitate housing mobility opportunities, continue to provide mortgage assistance for down payment, closing costs, and secondary financing to low- and moderate-income first-time homebuyers.	Continue to provide First-Time Homebuyer Down Payment Assistance to an average of three low- and moderate-income households annually.	Ongoing; make assistance information available on the City's website and in printed materials at City buildings by December 2023.	Ongoing. Materials (English and Spanish) are posted on the City's website and and distributed at City libraries, City Hall and the Multi-Service Center. The City conducted 5 workshops in 2023-early 2024 for First-time Homebuyers. The City developed a communication outreach plan that educates the community about the available programs and posts news once a month to raise awareness and participation.
Program 3.4.1: Support for Low and Moderate Income Homeowners B) To facilitate housing mobility opportunities, continue to target persons with disabilities, non-English speakers, affordable rental housing tenants, immigrants, and low-income households for participation in homeownership programs. Distribute materials at service centers or community gathering places for target populations.	Execute at least two targeted outreach methods when marketing available BMR homeownership units.	Translate program information to Spanish by December 2023. Distribute materials annually.	Ongoing. Program information was distributed via e-blasts to City housing interest list subscribers, via social media outlets, and Spanish translated materials were delivered to local businesses and multi-family developments with predominantly non-English speaking clientele/residents. Materials were also distributed to LVJUSD teachers and the Chamber of Commerce. Two outreach workshops/events were conducted targeting lower-income and predominantly non-English speaking (Spanish) residents in the City. The printed brochures and other supported information was also distributed between three library branches.
Program 3.4.1: Support for Low and Moderate Income Homeowners C) To facilitate housing mobility opportunities, align documentation and eligibility requirements with County programs, including the use of individual taxpayer identification numbers.	Update program requirements to remove access barriers.	By 2024	Ongoing. The City will update existing affordable homeownership guidelines to better align with other funder requirements that remove access barriers. Implementation of the revised guidelines is expected in 2024.
Program 3.4.1: Support for Low and Moderate Income Homeowners D) Continue to promote and provide information about the program on the City's website, newsletter, through email distribution, local advertising, and with brochures and handouts at the City's permit center counter, libraries, and community events.	Disseminate resources at least one community event annually	Ongoing on the City's website, as the City assists residents at the Permit Center, and at annual City events	Ongoing. The City's website is updated regularly with upcoming events, workshop announcements, and program announcements. In 2023, housing information was distributed at community events including the Farmer's Markets, community/faith-hosted outreach events targeting low income residents, and the Dia de los Muertos celebration hosted by the library. Information was distributed at a total of 7 community events, 5 first-time homebuyer workshops, and 6 counseling workshops.
Program 3.4.1: Support for Low and Moderate Income Homeowners E) Work with community-based organizations and institutions to provide homebuyer education, financial counseling, and foreclosure prevention.	60 low- and moderate-income households receive homebuyer support services over the course of the planning period.	Ongoing	Ongoing. The City provides grants to non-profit housing education and advocacy organizations (ECHO Housing and Centro Legal) to conduct fair housing education, financial education, first-time homebuyer education, and tenant protection counseling. In FY 2023 there were 12 workshops conducted for fair housing, homebuyer education, and tenant protection programs in person and online.

Table D

Program Implementation Status pursuant to GC Section 65583

Housing Programs Progress Report

Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.

1	2	3	4
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 3.4.1: Support for Low and Moderate Income Homeowners F) Pursue funding for programs that help participants of affordable rental programs access homeownership opportunities.	Submit or support a community partner's submission of at least one funding application	By 2024	Ongoing. In 2023, the City supported the Livermore Housing Authority's application to receive a Move to Work designation and started conversations with LHA to better coordinate affordable City homeownership programs with HUD's Family Self Sufficiency program to promote resident access to opportunities.
Program 3.4.2: Rental Assistance and Tenant Support Services A) Pursue additional funding to maintain and/or increase the amount of rental housing available through the Housing Choice Voucher (Section 8) Program and enhance support for other rental assistance programs.	Support at least eight funding requests or advocacy efforts to increase the number of vouchers in Livermore.	Annually	Ongoing. City worked with the Livermore Housing Authority and non-profit developers to apply Project Based Vouchers on City-sponsored affordable housing projects.
Program 3.4.2: Rental Assistance and Tenant Support Services B) Partner with the Livermore Housing Authority (LHA) to increase promotion of the Housing Choice Voucher program to the development community, property owners, homeowners with accessory dwelling units, and possible participants; support partners that provide outreach to landlords about voucher programs with the aim of increasing housing opportunities for recipients of rental assistance. Prioritize promotion in high resource areas.	Engage at least 50 landlords of properties in high resource areas.	Biennially	Ongoing. The City continues to coordinate with the Livermore Housing Authority on opportunities to promote HUD's Section 8 Program with the development community. The City will work with LHA and other non-profits providing rental assistance programs to support landlord engagement in 2024.
Program 3.4.2: Rental Assistance and Tenant Support Services C) To facilitate housing mobility opportunities, work with trusted community partners to provide linguistically and digitally accessible and culturally relevant rental housing search assistance to lower-income households and groups with special housing needs through service contracts and programming offered at the Vineyard Housing Resource Center.	Provide assistance to at least 50 lower□income households annually to identify housing opportunities	Launch Vineyard Housing Resource Center within 1 year of housing adoption and support ongoing operations	Ongoing. Vineyard Resource Center is set to launch in January 2024. Regional support includes $401,660 in Homeless Housing, Assistance, and Prevention (HHAP) for the ongoing operations of the Resource Center and City PLHA funds for the housing navigation component attached to the emergency shelter.
Program 3.4.2: Rental Assistance and Tenant Support Services D) Provide support for low-income renters, including multilingual tenant counseling, rental assistance, financial counseling, crisis stabilization services, and legal support to reduce displacement risk.	Provide assistance to at least 10 lower□income renters annually	Ongoing	Ongoing. The City provided assistance to 32 low-income renters through the Tenant Based Rental Assistance program in 2023.

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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 3.4.3: Homelessness Intervention A) Update the Development Code to reduce barriers to transitional housing, supportive housing, low-barrier navigation centers, and emergency shelters consistent with State law (e.g., SB 2, AB 101).	n/a	By December 2023 as part of the Development Code Update	In progress. The City began a comprehensive Development Code Update in 2023, which includes amendments to codify all updates to State housing laws, including SB 2 and AB 101.
Program 3.4.3: Homelessness Intervention B) Proactively connect unhoused individuals to resources through support of outreach, housing navigation, behavioral health and supportive services programs. Continue the City Serve, biohazard cleanup, and emergency shelter, and laundry and shower services programs.	Assistance to at least 50 unhoused individuals annually.	Launch the Vineyard low barrier navigation center by 2025 and support ongoing operations	Ongoing. Vineyard Resource Center completed construction a t the end of 2023 and includes 20 shelter beds, community meals, shower and laundry services, and housing navigation.
Program 3.4.3: Homelessness Intervention C) Facilitate coordination between the faith□based community and nonprofit providers of homeless services in the development and ongoing operations of solutions such as tiny home villages, safe parking, and outreach programs.	Support at least one project or program annually for persons experiencing homelessness.	Ongoing; reach out to organizations at least twice during the planning period to facilitate meetings or other forms of coordination as needed.	Ongoing. The City continues to fund homeless outreach programs through the annual grants process.

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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 3.5.1: Preservation of Subsidized Housing at Risk of Conversion to Market Rate A) As of 2022, 90 units are at risk of conversion to market-rate housing by 2033. The City will monitor the list of all dwellings that are subsidized by government funding or low-income housing developed through local regulations or incentives. The list will include, at least, the number of units, the type of government program, and the date on which the units are at risk to convert to market-rate dwellings. The City will work to reduce the potential conversion of any units to market rate through the following actions: a. Monitor the status of affordable projects, rental projects, and mobile homes in Livermore. Should the property owners indicate the desire to convert properties, provide technical and financial assistance, when possible, to ensure long-term affordability. b. If conversion of units is likely, work with local service providers as appropriate to seek funding to subsidize the at-risk units in a way that mirrors the U.S. Department of Housing and Urban Development (HUD) Housing Choice Voucher (Section 8) program. Funding sources may include state or local funding sources. c. Negotiate extensions of City financing and affordability restrictions for all three at risk properties as described in Section 2.8.	Monitor the 90 at-risk units as detailed in the program.	Ongoing communication with owners, service providers, and eligible potential purchasers; work with owners of deed-restricted units on an ongoing basis—particularly at the time of change of ownership.	Ongoing. The City continues to monitor the at-risk units list. In 2023, none of these units were converted.

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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 3.5.1: Preservation of Subsidized Housing at Risk of Conversion to Market Rate B) Pursuant to State law (Government Code Sections 65853.10, 65863.11, and 65863.13), owners of deed-restricted affordable projects are required to provide notice of restrictions that are expiring to all prospective tenants, existing tenants, and the City within 3 years, 12 months, and 6 months before the scheduled expiration of rental restrictions. In addition, the City or owner will provide notice to HUD, the California Department of Housing and Community Development (HCD), the Livermore Housing Authority, and the local legal aid organization. Owners shall also refer tenants of at-risk units to educational resources regarding: a. Tenant rights b. Conversion procedures c. Information regarding Section 8 rent subsidies d. Any other affordable housing opportunities in the city. e. In addition, notice shall be required prior to conversion of any units to market rate for any additional deed□restricted lower-income units that were constructed with the aid of government funding, that were required by inclusionary zoning requirements, that were part of a project granted a density bonus, or that were part of a project that received other incentives.	Monitor the 90 at-risk units as detailed in the program.	Ongoing communication with owners, service providers, and eligible potential purchasers; work with owners of deed-restricted units on an ongoing basis—particularly at the time of change of ownership.	Ongoing. The City continues to monitor the at-risk units list.
Program 3.5.1: Preservation of Subsidized Housing at Risk of Conversion to Market Rate C) If a development is offered for sale, HCD must certify persons or entities that are eligible to purchase the development and to receive notice of the pending sale. Placement on the eligibility list will be based on experience with affordable housing.	Monitor the 90 at-risk units as detailed in the program.	Ongoing communication with owners, service providers, and eligible potential purchasers; work with owners of deed-restricted units on an ongoing basis—particularly at the time of change of ownership.	Ongoing. The City continues to monitor the at-risk units list.

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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 3.5.1: Preservation of Subsidized Housing at Risk of Conversion to Market Rate D) When necessary, the City shall continue to work with property owners of deed□restricted affordable units who need to sell within 45 years of initial sale. When the seller is unable to sell to an eligible buyer within a specified time period, equity□sharing provisions are established (pursuant to the affordable housing agreement for the property), whereby the difference between the affordable and market value is paid to the City to eliminate any incentive to sell the converted unit at market rate. Funds generated would then be used to develop additional affordable housing in the city. The City shall continue tracking all residential projects that include affordable housing to ensure that the affordability is maintained for at least 45 years for owner-occupied units and 55 years for rental units, and that any sale or change of ownership of these affordable units prior to satisfying the 45- or 55-year restriction shall be "rolled over" for another 45 or 55 years to protect "at-risk"" units.	Monitor the 90 at-risk units as detailed in the program.	Ongoing communication with owners, service providers, and eligible potential purchasers; work with owners of deed-restricted units on an ongoing basis—particularly at the time of change of ownership.	Ongoing. The City continues to monitor the at-risk units list.
Program 3.5.1: Preservation of Subsidized Housing at Risk of Conversion to Market Rate E) Communicate with tenants and respond to notices of intent filed by property owners in a timely manner.	n/a	Ongoing, as needed	Ongoing. The City continues to monitor the at-risk units list.
Program 3.5.1: Preservation of Subsidized Housing at Risk of Conversion to Market Rate F) Pursue funding for the preservation of at□risk housing and provide financial incentives to landlords who agree to continue to provide affordable units.	Preservation of 90 units at risk of conversion to market rate	Ongoing	Ongoing. The City continues to monitor the at-risk units list.

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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 3.5.2: Housing Replacement Program A) In accordance with California Government Code Section 65583.2(g), the City will require replacement housing units subject to the requirements of California Government Code Section 65915(c)(3) on sites identified in the sites inventory when any new development (residential, mixed-use, or nonresidential) occurs on a site that has been occupied by or restricted for the use of lower□income households at any time during the previous five years. This requirement applies to nonvacant sites and vacant sites with previous residential uses that have been vacated or demolished.	n/a	Ongoing, as applications on identified sites are received and processed.	Ongoing. In 2023, the City did not receive any development applications proposing a project on a site that has been occupied by or restricted for the use of lower income households at any time during the previous five years. The City will continue to monitor this requirement as development applications are received.
Program 4.1.1: Residential Development Codes and Design Standards A) Continue to enforce State Energy Code and California Green Building Standards Code (CALGreen) regulations for energy efficiency, water conservation, environmental quality, etc., in residential development applications.	n/a	Ongoing as projects are reviewed	Ongoing. Compliance with State Energy Code and CALGreen regulations is a requirement all residential building applications and is reviewed by the Building Division as applications are processed. Building Division staff are available to meet with project applicants to discuss green building measures over the counter at the Permit Center, or by appointment.
Program 4.1.1: Residential Development Codes and Design Standards B) Encourage developers to exceed the minimum State Energy Code and CALGreen requirements by maintaining information on the City's website and providing assistance at the Permit Center.	n/a	Update the website with new 2022 CALGreen requirements by March 2023, then ongoing as the City assists applicants in the Permit Center	Complete. The City of Livermore adopted amendments to the 2022 CALGreen code that were effective January 1, 2023 (LMC Chapter 15.26 - Green Building Standards Code).
Program 4.1.1: Residential Development Codes and Design Standards C) Develop cost-effective local energy reach codes for all-electric buildings and electric vehicle charging for new housing, consistent with the City's Climate Action Plan. Establish exceptions for projects such as accessory dwelling units, affordable housing, and non-profit organizations serving low-income and underserved communities.	n/a	By December 2023	Complete. The City requires most new buildings in Livermore to be constructed all-electric and to install more EV chargers than required by the State code. The standards do not apply to remodels or additions to existing buildings. The City's all-electric and EV charging codes are part of its Climate Action Plan efforts.

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Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 4.1.1: Residential Development Codes and Design Standards D) Require new developments to incorporate onsite drought tolerant landscaping, water conservation features, open space, park space, and/or shade-providing features to reduce urban heat effects, reduce water-use, and help sequester carbon. Consider establishing exceptions for projects such as accessory dwelling units, affordable housing, and non-profit organizations serving low□income and underserved communities.	n/a	Ongoing as projects are reviewed. Study and evaluate opportunities for new standards by December 2026. Update relevant codes by December 2027.	Ongoing. The City will continue to explore opportunities to create new design standards as they relate to landscaping and water conservation features. In addition, the City ensures all development applications are consistent with the landscaping requirements set forth in the Citywide Design Standards and Guidelines.
Program 4.1.2: Residential Retrofits A) Partner with regional stakeholders, such as East Bay Community Energy (EBCE) and BayREN, to offer incentives for energy efficiency, electrification, weatherization, energy storage, and resilience retrofits in existing housing, consistent with the Climate Action Plan. Focus efforts in low□income and vulnerable communities with a geographic emphasis on the Rincon neighborhood and other neighborhoods north of Downtown as well as supportive shared housing and licensed care facilities described in Section 2.4.	100 retrofitted housing units during the planning period.	Meet with partner organizations quarterly	Ongoing. The City launched the Livermore Resilient Hub, an online resource center that provides information about incentives and rebates available to residents to implement sustainability and resilience retrofits. The City also promoted resources on social media and e-newsletters, and participated in monthly meetings with regional partners to stay informed of existing and future resources.
Program 4.1.2: Residential Retrofits B) Provide information in multiple languages on the City's website on safe and healthy housing conditions and tools to address unhealthy housing conditions. Share information about available incentives, regulations, contractors, and considerations. Focus efforts in Springtown, neighborhoods north of Downtown, and supportive shared housing and licensed care facilities described in Section 2.4 to facilitate place-based revitalization and reduce displacement risk.	n/a	By December 2024	Ongoing. The City launched the Livermore Resilient Hub, an online resource center that provides information about incentives and rebates available to residents to implement sustainability and resilience retrofits. The City also promoted resources on social media and e-newsletters, and participated in monthly meetings with regional partners to stay informed of existing and future resources.
Program 4.1.3: Neighborhood Preservation Program A) Continue to implement the City's Neighborhood Preservation Program to correct building code violations. Focus efforts on defects that threaten health and safety of occupants and the community.	Target assistance to at least 10 units annually	Ongoing; update information about the program on the City's website annually, or as needed, and distribute information through City newsletters, social media, and other platforms annually.	Complete and Ongoing. In 2023, Neighborhood Preservation responded to over 900 violations and resolved over 90% of all cases involving graffiti, abandoned shopping carts, overgrown vegetation, illegal dumping, and illegal structures.

Table D Program Implementation Status pursuant to GC Section 65583 **Housing Programs Progress Report** Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
1	**2**	**3**	**4**
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 4.1.3: Neighborhood Preservation Program B) Pursue funding to provide low-income homeowners and renters with financial assistance to correct building code violations and make accessibility improvements. Coordinate these efforts with the Climate Action Plan retrofit efforts (Program 4.1.2.A) to maximize resources and benefit, including prioritization of investments in neighborhoods north of Downtown like Rincon.	See Program 4.1.2.A	Ongoing; apply for funding at least annually as available.	The City launched the Livermore Resilient Hub, an online resource center that provides information about incentives and rebates available to residents to implement sustainability and resilience retrofits. Additionally, the City completed a new Vulnerability Analysis as part of the General Plan Update, which will support future applications for funding to implement retrofit programs in low-income and vulnerable communities.
Program 4.1.3: Neighborhood Preservation Program C) Monitor multifamily complexes that have received City funding for housing quality, resident services, customer service, and linguistic and physical accessibility	Conduct annual monitoring assessments	Ongoing	Ongoing. The City continues to monitor property regulatory agreements annually.
Program 4.1.3: Neighborhood Preservation Program D) Continue to promote Neighborhood Preservation programs and cleanup events through the City's website to support community-oriented place□based revitalization	See Program 4.1.3.A	Ongoing	Ongoing. The City's website contains information on upcoming events related to neighborhood nuisance and cleanup, including clutter support groups.
Program 4.1.3: Neighborhood Preservation Program E) Use volunteer assistance cleanup teams, specifically to assist frail elderly and disabled homeowners who have received code complaints for property upkeep.	n/a	Ongoing; coordinate volunteer cleanups annually, or as needed	Ongoing. The City's website contains information on upcoming events related to neighborhood nuisance and cleanup, including clutter support groups.
Program 4.2.1:Neighborhood Improvement A) Improve the quality of older neighborhoods, particularly in low□resource areas, affordable housing developments, and neighborhoods north of Downtown, by upgrading sidewalks, parks, lighting, tree canopy, bike lanes, and other public facilities.	At least 8 infrastructure investments in high need communities, such as rehabilitation of Doolan Park, the installation of electric car chargers at Rincon Library, or bike lines along Rincon Avenue, during the Planning period.	Biennially as part of the capital improvement planning process	Ongoing. The City's CIP includes ongoing/annual improvements for street resurfacing, sidewalk repair, and ADA access ramps.
Program 4.2.1:Neighborhood Improvement B) Pursue funding available for acquisition and rehabilitation of foreclosed, vacant, and/or blighted properties.	See Program 3.2.4	Annually	Ongoing. The City continues to work with non-profit housing agencies to identify prospective acquisition and rehabilitation opportunities that could rehabilitate blighted and distressed properties within the City and provide safe, clean and affordable rental housing opportunities.
Program 4.2.1:Neighborhood Improvement C) Pursue funding to acquire land and/or facilitate development of urban parks on infill sites, particularly in low-resource areas and affordable housing developments, to promote place-based revitalization through air pollution mitigation and improved access to outdoor recreational opportunities.	Provide at least one□third acre of parkland or open space within one mile of all residences.	Meet annually with LARPD	Ongoing. The City continues to coordiante with regional partners and developers regarding funding for parkland and open space in low0resource areas.

Table D Program Implementation Status pursuant to GC Section 65583 **Housing Programs Progress Report** Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
1	2	3	4
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 4.2.1:Neighborhood Improvement D) Continue to identify funding and provide technical assistance to upgrade and enhance programming and community and recreational spaces in rental housing properties owned and managed by the Livermore Housing Authority (LHA).	Support at least three service or infrastructure enhancements at Leahy Square, Bluebell, Chestnut, or Las Posadas apartments over the planning period.	Ongoing	Ongoing. The City continues to seek opportunities to enhance programming and community and recreational spaces in rental housing properties owned and managed by the Livermore Housing Authority (LHA).
Program 5.1.1: Support Nonprofit Organizations Specializing in Fair Housing Services A) Provide financial assistance and administrative support to local nonprofit organizations that specialize in reducing discriminatory housing practices through fair housing counseling, tenant/landlord mediation, education, outreach, and rental assistance to reduce displacement risk resulting from discrimination and facilitate housing mobility opportunities.	Assist at least 20 households annually through the programs offered by fair housing providers.	Annually through grants and contracts	Ongoing. The City provides annual financial assistance and operating support to ECHO Housing, to assist residents with fair housing complaints, tenant landlord disputes, accessing housing and fair housing education. The City also contracts annually with Centro Legal de la Raza to provide legal services and conduct public outreach regarding tenant rights. Centro conducts monthly educational workshops for tenants at risk of displacement and legal proceedings.
Program 5.1.1: Support Nonprofit Organizations Specializing in Fair Housing Services B) Continue to refer complaints of discriminatory housing practices to fair housing providers.	Provide references to at least 3 residents experiencing fair housing issues, or as complaints are received.	Ongoing	Ongoing. In FY 2022-2023 the City referred 100+ individuals to fair housing and anti-displacement providers.
Program 5.1.1: Support Nonprofit Organizations Specializing in Fair Housing Services C) Refer complaints and requests for housing for the disabled to partner organizations.	Provide references to at least 3 residents, or as complaints are received.	Ongoing	Ongoing. The City maintains a list of partner organizations on the website and provides referrals as inquiries are received from the public. The City provided referrals to 28 disabled individuals or their families in 2023.
Program 5.1.1: Support Nonprofit Organizations Specializing in Fair Housing Services D) Distribute fair housing brochures at public locations, such as city counters, public libraries, community/senior centers, and service providers. Expand outreach and access to information for limited English□speaking residents by providing all materials in dominant non-English languages, including Spanish, Farsi, and Simplified Chinese, by January 2023.	Update and distribute fair housing materials at least annually, and disburse materials at at least one community event annually with an emphasis on areas with a high number of renters.	Annually	Ongoing. Fair Housing materials were distributed through the City's contract with ECHO Housing. Over 500 flyers were distributed every quarter of the year, and on-site consultations are provided in English, and Spanish. the Fair Housing information is available in Simplified Chinese, Spanish, Mandarin, and Tagalog. ECHO also conducts monthly fair housing workshops. ECHO provided consultations to over 200 individuals in 2023.

Table D Program Implementation Status pursuant to GC Section 65583 **Housing Programs Progress Report** Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
1	**2**	**3**	**4**
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 5.1.1: Support Nonprofit Organizations Specializing in Fair Housing Services E) Provide financial support for fair housing audits and the dissemination of audit results and information on fair housing laws to landlords, rental housing organizations, and the public. Hold biannual trainings for landlords and property managers to review findings and provide education on fair housing rights and responsibilities to reduce displacement risk resulting from discrimination and facilitate housing mobility opportunities.	Engage at least 30 landlords and property owners every 2 years with an emphasis on high resource areas. Support annual audits of 10 or more landlords. Conduct fair housing testing and/or advertising audits annually.	Annually, through annual grants and contracts	Ongoing. The City contracted with ECHO Housing to complete fair housing property audits in Livermore and investigate fair housing cases. Every month ECHO conducts a regional fair housing training inviting property managers and landlords in Livermore to learn about fair housing laws. These trainings are open to tenants as well. ECHO also conducts an annual systemic audit of at least 10 landlords for possible discrimination. ECHO's Fair Housing staff continues to monitor sites like Craigslist for advertising violations and provide education and/or testing on these sites.
Program 5.1.2: Reasonable Accomodations A) Consistent with state and federal laws, continue to provide individuals with disabilities reasonable accommodation in rules, policies, practices, and procedures through the building permit and development review processes.	n/a	Ongoing	Ongoing. The Livermore Development Code outlines procedures to address reasonable accommodation (Chapter 9.06).
Program 5.1.2: Reasonable Accomodations B) Continue to partner with fair housing organizations to conduct trainings, test, and audits that help ensure reasonable accommodations are provided conduct in multifamily rental properties. Provide regular training to landlords.	See Program 5.1.1	Ongoing	Ongoing. As described in Program 5.1.1, the City partners with ECHO to conduct a fair housing audit of 10 rental properties each year. ECHO provided the landlords of these properties with training and information regarding disability laws and tenant/landlord rights and responsibilities. In addition, ECHO offered free fair housing training to the owners and managers of rental properties in Livermore.
Program 5.1.2: Reasonable Accomodations C) Work with Livermore Housing Authority and partner organizations to identify landlords in need of assistance with making modifications for persons with disabilities in the Section 8 program.	n/a	Meet with the Housing Authority within 2 years of Housing Element adoption; identify landlords biannually, as feasible	Ongoing. Targeted for 2024/2025 implementation.
Program 5.2.1: Fair Housing Policies and Programs A) Conduct racial equity impact assessments of City policies for potential unintended fair housing impacts on people of color and work with stakeholders to address those impacts	Racial equity assessments of at least three City housing policies.	Within 3 years of Housing Element adoption	Ongoing. Targeted for 2024/2025 implementation.
Program 5.2.1: Fair Housing Policies and Programs B) Strengthen requirements for City-funded affordable housing and service providers to offer linguistically accessible services, particularly in Spanish, to increase housing mobility opportunities through increased accessibility	Incorporate language access requirements into at least five Housing and Human Services grant agreement or service contracts.	Within 3 years of Housing Element adoption	Ongoing. Targeted for 2024/2025 implementation.

Table D Program Implementation Status pursuant to GC Section 65583 **Housing Programs Progress Report** Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
1	**2**	**3**	**4**
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 5.2.1: Fair Housing Policies and Programs C) To facilitate housing mobility opportunities, pursue funding for culturally relevant financial empowerment services to help community members with protected characteristics remove economic barriers to accessing housing like credit scores and income documentation	Submit at least one funding application to support the program.	Within 2 years of Housing Element adoption	Ongoing. Targeted for 2024/2025 implementation.
Program 5.2.1: Fair Housing Policies and Programs D) Present new policies to City Council that prevent displacement for low- and moderate-income community members and protect families with children, essential workers, seniors, and people with disabilities, such as an anti□harassment ordinance, just cause eviction ordinance, Ellis Act protections, or a tenant opportunity to purchase policy.	Present at least one tenant protection ordinance to City Council to consider for adoption.	Within 3 years of Housing Element adoption	Ongoing. Targeted for 2024/2025 implementation.
Program 5.2.1: Fair Housing Policies and Programs E) Work with trusted community partners to provide linguistically and digitally accessible and culturally relevant housing search assistance to address racial housing disparities experienced by Latinx, Black, Asian, and Pacific Islander community members and increase housing mobility.	Provide resources and guidance to at least three community partners to address local racial housing disparities.	Engage community partners and provide guidance and/or resources within 2 years of Housing Element adoption	Ongoing. Targeted for 2024/2025 implementation.
Program 5.2.1: Fair Housing Policies and Programs F) Conduct a feasibility assessment for a Citywide rental registry to reduce displacement risk.	Complete Citywide rental registry feasibility assessment	Within 2 years of Housing Element adoption	Ongoing. Targeted for 2025 implementation.
Program 5.2.1: Fair Housing Policies and Programs G) Prioritize public improvements and residential retrofits described in Actions 4.1.2.A, 4.2.1.A, and 4.2.1.C (such as streets and drainage, sidewalks and alleys, green spaces and parks, street trees, and other public facilities, amenities and infrastructure) in neighborhoods with the greatest need, including neighborhoods with high concentrations of poverty and limited existing resources and amenities.	Adopt a Climate Action Plan that includes commitments to prioritizing microgrid, water efficiency, urban canopy, stormwater, and electric vehicle investments in high need communities.	Within 2 years of Housing Element adoption	Complete. The City adopted the 2022 Climate Action Plan (CAP) on November 28, 2022. The 2022 CAP is a roadmap to reduce greenhouse gas (GHG) emissions, adapt to extreme weather, deploy reliable and renewable energy, conserve habitat and biodiversity, and ensure equitable access to the benefits of a sustainable city.
Program 5.2.1: Fair Housing Policies and Programs H) Identify opportunities in the General Plan Circulation Element and/or Active Transportation Plan to strengthen biking, pedestrian, and public transit connections from lower resource to higher-resource areas	Adopt an updated Circulation Element of the General Plan and/or updated Active Transportation Plan.	Within 3 years of Housing Element adoption	Ongoing. The City is preparing a comprehensive General Plan Update which will include and updated Circulation Element.

Table D Program Implementation Status pursuant to GC Section 65583 **Housing Programs Progress Report** Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
1	2	3	4
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 5.2.1: Fair Housing Policies and Programs I) Implement strategies in partnership with the school district, Livermore Amador Valley Transit Authority, and community based organizations that increase biking, pedestrian, and public transit access for low-income and special needs households, such as free transit pass programs.	Distribute 5,000 free bus passes over the planning period to low-income families, unhoused individuals, and people with disabilities through partnerships with organizations such as the Livermore Valley Unified School District, Cityserve, La Familia, and Communities for Resource Independent Living (CRIL).	Commence immediately and engage partners on annual basis about new strategies	Ongoing. In 2023 the City distributed 3,325 24 hour bus passes to non-profits, LVUSD, and Livermore Police Departments Homeless Liaison Officers.
Program 5.2.1: Fair Housing Policies and Programs J) Utilize Community Development Block Grant and Human Services Facility funds to support place-based strategies to improve conditions, resources, and amenities in lower-income communities such as neighborhoods north of Downtown	At least 5 investments in projects that create or improve facilities and infrastructure benefiting low-income community members over the planning period.	Ongoing through annual Housing & Human Services Grant allocation process.	In FY 2022-23, funded Axis Community Health with $184,210 of Human Services Facility Fee funds for the acquisition of a new Medical and Dental site in Livermore. In 2023 Open Heart Kitchen completed construction of their new community kitchen and dining facility in the Vineyard Resource Center. This project provides permanent infrastructure for the free community meal program within walking distance to the Rincon and North I Street neighborhoods near downtown.
Program 5.2.1: Fair Housing Policies and Programs K) Address racial homeownership gaps and produce more missing middle housing through the City's inclusionary housing program	See Program 3.1.1. Adopt policies and procedures with inclusive outreach and marketing standards within 1 year of Housing Element adoption and encourage at least half of the moderate income units produced by the inclusionary housing ordinance over the planning period to be integrated into low□density and single□family dominated neighborhoods or in high resource areas.	Commence immediately and engage developers as new projects are submitted at least annually	Ongoing. The City will update existing affordable homeownership guidelines to reflect inclusive marketing efforts and remove access barriers. Implementation of the revised guidelines is expected in 2024. In 2023 the City engaged with three residential developers in the Isabel Neighborhood Plan Area to execute Low Income For Sale Housing Agreements that will provide future moderate and median income homebuyer opportunities.
Program 6.1.1: Tri-Valley Affordable Housing Committee A) Continue to participate in Tri-Valley Affordable Housing Committee to identify regional housing issues and to develop multi-jurisdictional approaches to solving affordable housing problems with focus on income integration and housing mobility opportunities.	n/a	Ongoing, quarterly. Attend at least 30 Tri- Valley Affordable Housing Committee meetings over the planning period	Ongoing. In 2023 the Tri-Valley Affordable Housing Committee was disbanded. Housing staff of the Tri-Valley Cities continues to coordinate on a quarterly basis.

Table D

Program Implementation Status pursuant to GC Section 65583

Housing Programs Progress Report

Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.

1	2	3	4
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Program 6.1.2: Regional Responses to Homelessness A) Continue to coordinate with other local jurisdictions to in the provision of outreach, social services, and referrals to people with disabilities, survivors of domestic violence, and homeless or those at risk of becoming homeless. Continue joint support of local homeless shelters and the Vineyard 2.0 navigation center.	Jointly fund at least three homeless services projects each year. See Program 3.4.3 for service objectives.	Ongoing; through annual Housing & Human Services Grant allocation process.	The Cities of Livermore, Pleasanton, and Dublin provided funding to the rebuild of the Tri-Valley Haven's shelter, operational funding for CityServe of the Tri-Valley's homeless services, and the Goodness Village homeless housing project.
Program 6.1.2: Regional Responses to Homelessness B) Pursue opportunities to secure joint funding with neighboring and local jurisdictions to aid homeless and at-risk households, such as the Project Reclamation supportive shared housing program.	Submit a multijurisdictional Homekey application in Round 3 to support permanent supportive housing production objectives identified in Program 1.5.3.D.	In 2023, and annually as opportunities arise	Ongoing. The Cities of Livermore, Pleasanton, and Dublin collaborated to provide grant
Program 6.1.2: Regional Responses to Homelessness C) Implement local and regional plans to address homelessness, such as the Alameda County Home Together plan.	n/a	Ongoing	Ongoing. The Tri-Valley Region received $862,436 in Homeless Housing, Assistance, and Prevention (HHAP) funds to address homelessness in the Tri-Valley Region. The projects funded are in accordance with the Alameda County Home Together Plan for the Continuum of Care.
Program 6.1.2: Regional Responses to Homelessness D) Continue participating in local and regional partnerships to address homelessness, such as Everyone Home.	Participate in at least one regional partnership annually to address homelessness	Ongoing; meet annually with partners	Ongoing. Human Services staff are part of the EveryoneHome Leadership Board and Homeless Information Management System (HMIS) Committee that meets monthly.

Jurisdiction	Livermore	
Reporting Period	2023	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	01/31/2023 - 01/31/2031

ANNUAL ELEMENT PROGRESS REPORT

Housing Element Implementation

(CCR Title 25 §6202)

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table E

Commercial Development Bonus Approved pursuant to GC Section 65915.7

Project Identifier				Units Constructed as Part of Agreement				Description of Commercial Development Bonus	Commercial Development Bonus Date Approved
1				2				3	4
APN	Street Address	Project Name+	Local Jurisdiction Tracking ID+	Very Low Income	Low Income	Moderate Income	Above Moderate Income	Description of Commercial Development Bonus	Commercial Development Bonus Date Approved
Summary Row: Start Data Entry Below									

Jurisdiction	Livermore	
Reporting Period	2023	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	01/31/2023 - 01/31/2031

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table F

Units Rehabilitated, Preserved and Acquired for Alternative Adequate Sites pursuant to Government Code section 65583.1(c)

Please note this table is optional: The jurisdiction can use this table to report units that have been substantially rehabilitated, converted from non-affordable to affordable by acquisition, and preserved, including mobilehome park preservation, consistent with the standards set forth in Government Code section 65583.1, subdivision (c). Please note, motel, hotel, hostel rooms or other structures that are converted from non-residential to residential units pursuant to Government Code section 65583.1(c)(1)(D) are considered net-new housing units and must be reported in Table A2 and not reported in Table F.

Activity Type	Units that Do Not Count Towards RHNA+ Listed for Informational Purposes Only				Units that Count Towards RHNA + Note - Because the statutory requirements severely limit what can be counted, please contact HCD at apr@hcd.ca.gov and we will unlock the form which enable you to populate these fields.				The description should adequately document how each unit complies with subsection (c) of Government Code Section 65583.1+. For detailed reporting requirements, see the chcklist here:
	Extremely Low-Income+	Very Low-Income+	Low-Income+	TOTAL UNITS+	Extremely Low-Income+	Very Low-Income+	Low-Income+	TOTAL UNITS+	https://www.hcd.ca.gov/community-development/docs/adequate-sites-checklist.pdf
Rehabilitation Activity									
Preservation of Units At-Risk									
Acquisition of Units									
Mobilehome Park Preservation									
Total Units by Income									

Jurisdiction	Livermore	
Reporting Period	2023	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	01/31/2023 - 01/31/2031

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table F2
Above Moderate Income Units Converted to Moderate Income Pursuant to Government Code section 65400.2

For up to 25 percent of a jurisdiction's moderate-income regional housing need allocation, the planning agency may include the number of units in an existing multifamily building that were converted to deed-restricted rental housing for moderate-income households by the imposition of affordability covenants and restrictions for the unit. Before adding information to this table, please ensure housing developments meet the requirements described in Government Code 65400.2(b).

Project Identifier					Unit Types		Affordability by Household Incomes After Conversion							Units credited toward Moderate Income RHNA		Notes
1					2	3	4							5		6
Prior APN+	Current APN	Street Address	Project Name+	Local Jurisdiction Tracking ID	Unit Category (2 to 4,5+)	Tenure R=Renter	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate- Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Total Moderate Income Units Converted from Above Moderate	Date Converted	Notes
Summary Row: Start Data Entry Below							0	0	0	0	0	0	0	0		

EXHIBIT A

Jurisdiction	Livermore		
Reporting Period	2023	(Jan. 1 - Dec. 31)	
Planning Period	6th Cycle	01/31/2023 - 01/31/2031	

NOTE: This table must only be filled out if the housing element sites inventory contains a site which is or was owned by the reporting jurisdiction, and has been sold, leased, or otherwise disposed of during the reporting year.

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Table G						
Locally Owned Lands Included in the Housing Element Sites Inventory that have been sold, leased, or otherwise disposed of						
Project Identifier						
1				2	3	4
APN	Street Address	Project Name+	Local Jurisdiction Tracking ID+	Realistic Capacity Identified in the Housing Element	Entity to whom the site transferred	Intended Use for Site
Summary Row: Start Data Entry Below						

EXHIBIT A

Jurisdiction	Livermore	**NOTE: This table must contain an invenory of ALL surplus/excess lands the reporting jurisdiction owns**
Reporting Period	2023 (Jan. 1 - Dec. 31)	

Note: "+" indicates an optional field
Cells in grey contain auto-calculation formulas

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

For Alameda County jurisdictions, please format the APN's as follows:999A-9999-999-99

Table H
Locally Owned Surplus Sites

Parcel Identifier				Designation	Size	Notes
1	2	3	4	5	6	7
APN	**Street Address/Intersection**	**Existing Use**	**Number of Units**	**Surplus Designation**	**Parcel Size (in acres)**	**Notes**
Summary Row: Start Data Entry Below						
099-0175-026-00	E Stanley Blvd	Vacant	0	Surplus Land	0.344	Development challenges include lack of safe public access, adjacent to railroad tracks and in/adjacent to Arroyo Mocho Channel
099-0175-025-00	E Stanley Blvd	Vacant	0	Surplus Land	0.843	"Development challenges include lack of safe public access, adjacent to railroad tracks and in/adjacent to Arroyo Mocho Channel"

Jurisdiction	Livermore	
Reporting Period	2023	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	01/31/2023 - 01/31/2031

NOTE: STUDENT HOUSING WITH DENSITY BONUS ONLY. This table only needs to be completed if there were student housing projects WITH a density bonus approved pursuant to Government Code65915(b)(1)(F)

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table J

Student housing development for lower income students for which was granted a density bonus pursuant to subparagraph (F) of paragraph (1) of subdivision (b) of Section 65915

Project Identifier				Project Type	Date	Units (Beds/Student Capacity) Approved							Units (Beds/Student Capacity) Granted Density Bonus	Notes
1				2	3	4							5	6
APN	**Street Address**	**Project Name+**	**Local Jurisdiction Tracking ID+**	**Unit Category** (SH - Student Housing)	**Date**	**Very Low- Income Deed Restricted**	**Very Low- Income Non Deed Restricted**	**Low- Income Deed Restricted**	**Low- Income Non Deed Restricted**	**Moderate- Income Deed Restricted**	**Moderate- Income Non Deed Restricted**	**Above Moderate-Income**	**Total Additional Beds Created Due to Density Bonus**	**Notes**
Summary Row: Start Data Entry Below														

Jurisdiction	Livermore	
Reporting Period	2023	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	01/31/2023 - 01/31/2031

ANNUAL ELEMENT PROGRESS REPORT

Table K
Tenent Preference Policy

Local governments are required to inform HCD about any local tenant preference ordinance the local government maintains when the jurisdiction submits their annual progress report on housing approvals and production, per Government Code 7061 (SB 649, 2022, Cortese). Effective January 1, 2023, local governments adopting a tenant preference are required to create a webpage on their internet website containing authorizing local ordinance and supporting materials, no more than 90 days after the ordinance becomes operational.

Does the Jurisdiction have a local tenant preference policy?	No
If the jurisdiction has a local tenant preference policy, provide a link to the jurisdiction's webpage on their internet website containing authorizing local ordinance and supporting materials.	
Notes	

Jurisdiction	Livermore	
Reporting Year	2023	(Jan. 1 - Dec. 31)

ANNUAL ELEMENT PROGRESS REPORT
Local Early Action Planning (LEAP) Reporting
(CCR Title 25 §6202)

Please update the status of the proposed uses listed in the entity's application for funding and the corresponding impact on housing within the region or jurisdiction, as applicable, categorized based on the eligible uses specified in Section 50515.02 or 50515.03, as applicable.

Total Award Amount	$ 300,000.00	*Total award amount is auto-populated based on amounts entered in rows 15-26.*

Task	$ Amount Awarded	$ Cumulative Reimbursement Requested	Task Status	Other Funding	Notes
Housing Element Update	$163,000.00	$162,945.20	Completed	Local General Fund	Reimbursements submitted 12/31/2023.
Development Code Ordinance Updates	$103,000.00	$0.00	Other (Please Specify in Notes)	Local General Fund	Ongoing, to be completed in winter 2024
Isabel Neighborhood Specific Plan	$34,000.00	$33,502.75	Completed	Local General Fund	Reimbursements submitted 12/31/2023.

LIVERMORE
CALIFORNIA

CITY COUNCIL STAFF REPORT **ITEM NO. 6.2**

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Paul Spence, Assistant City Manager

SUBJECT: Resolution authorizing, approving, and adopting an amended Permanent Local Housing Allocation (PLHA) program five-year plan to reallocate funds to support the shelter and housing assistance provided at Vineyard 2.0 as well as rental assistance provided by City Serve, and authorizing the City Manager to apply for PLHA funds from the State Department of Housing and Community Development in an amount not-to-exceed $1,251,240 and execute grant agreements consistent with the program activities defined in the amended PLHA 2019-2023 plan.

RECOMMENDED ACTION

Staff recommends that the City Council adopt two resolutions:

1. Authorizing, approving, and adopting an amended PLHA Plan for 2019-2023 allocations, which is attached to the resolution as Exhibit A;
2. Authorizing the City Manager, or her designee, to execute the PLHA program application for the 2023 PLHA NOFA, the PLHA standard agreement, and any subsequent amendments or modifications thereto, as well as any other documents that are related to the PLHA program or the PLHA grant awarded to the City of Livermore;
3. Authorizing the City Manager to accept and appropriate the allocations for the amended PLHA plan if awarded in an amount not-to-exceed $1,251,240, and directing the City Manager or her designee, to sign and submit Fund Requests and all required reporting forms and other documentation as may be required by the State of California in connection with the grant; and
4. Authorizing the City Manager or her designee to sign all documents related to the execution of grant agreements with subgrantees receiving allocations of funds from the CA State Housing and Community Development PLHA program, including the selection of, and contracting with, service providers in amounts exceeding $100,000, consistent with the allowable activities in the PLHA program.

SUMMARY

The Permanent Local Housing Allocation (PLHA) program is a non-competitive block grant program designed to provide direct assistance to communities to increase the local housing stock through a wide

range of eligible activities, including the development of rental housing that is affordable to extremely low-income households and assistance to persons who are experiencing homelessness. On November 14, 2022, the City Council approved an application to State HCD for new funding under the PLHA program and approved a five-year plan (the “Plan”) for the use of an estimated total of $1,251,240 in grant funds.

Staff recommends the City Council approve an amended 2019-2023 PLHA Plan to reallocate funds to more activities that support the shelter and housing assistance provided at Vineyard 2.0 as well as rental assistance to be provided by City Serve to prevent or address homelessness. Staff also recommends City Council authorize the City Manager or her designee to execute the grant agreements with subgrantees receiving allocations consistent with the allowable activities defined in the amended PLHA 2019-2023 plan.

DISCUSSION

In 2017, Governor Brown signed the Building Homes and Jobs Act, which established a $75 recording fee on real estate documents to increase the supply of affordable homes in California and designated 70% of the revenue collected for the Permanent Local Housing Allocation (PLHA) program. On December 29, 2023, the State of California Department of Housing and Community Development (State HCD) issued a Notice of Funding Availability (NOFA) for the PLHA program utilizing these funds.

PLHA funding is a non-competitive block grant program designed to provide direct assistance to communities to increase the local housing stock through a wide range of eligible activities, including the development of affordable rental housing for extremely low-income households and assistance to persons experiencing homelessness. Because the number of real estate transactions recorded in each county will vary yearly, the revenues collected and funds available to local jurisdictions will fluctuate. Each year, State HCD releases a NOFA for the revenue collected in the prior calendar year, and jurisdictions like the City of Livermore, entitled to a formula allocation, submit a streamlined application to access the funds.

On November 14, 2022, the City Council approved an application to State HCD for funding under the PLHA program and approved a five-year plan to use an estimated total of $1,251,240 in grant funds. This PLHA plan serves as a guide for the City to plan for activities and submit annual applications to the CA Department of Housing and Community Development. The activities in the adopted PLHA plan included funds for operating subsidies and housing navigation for the Vineyard 2.0 project as well as funding for the rehabilitation and expansion of shared housing units serving extremely low-income and special needs populations.

Following plan approval, the City partnered with the Tri-Valley REACH (REACH) to assist with funding for two rehabilitation projects that supply supportive, affordable shared homes for extremely low-income tenants with intellectual and/or developmental disabilities. Both shared homes provide options for residents to live independently, work, and volunteer in the community. The scope of rehabilitations included expansion of the bedroom spaces to accommodate additional tenants, structural improvements, interior renovation, landscaping design, and accessibility improvements. The latest rehabilitation project located on Camden Common opened its doors to the residents on February 14, 2024. No additional projects for this activity have been identified.

Construction of the Vineyard 2.0 project was finished in December of 2023, and the Vineyard Resource

Center opened its doors on January 22, 2024. In addition to 24 units of permanent housing for extremely low-income households, the Vineyard Resource Center provides a multitude of services to address the homelessness crises, such as housing navigation assistance, shower and laundry services, and an overnight refuge shelter operated by Open Heart Kitchen through their Open Heart Refuge program. All funding needed for operation of the residential units has been secured from other (non-PLHA) sources and therefore operating subsidies for the project are no longer needed.

The additional PLHA funding will allow the 20-bed shelter to sustain operations seven days a week providing overnight refuge for persons from inclement weather along with breakfast and dinner through Open Heart Kitchen, daily showers, laundry services, and access to housing navigation. Staff recommends amending the five-year PLHA plan to reallocate funds to additional activities that assist persons who are experiencing or at risk of homelessness per the PLHA guidelines. These activities include but are not limited to providing rapid rehousing, rental assistance, and supportive case management services that allow people to obtain and retain housing and operating and capital costs for navigation centers and emergency shelters.

The proposed Plan amendment will also allow the City to allocate flexible-use funds to Housing Consortium of the East Bay (HCEB) through the Vineyard Resource Center housing navigator, and to CityServe, or other providers for rental assistance. It reflects the feedback received from the community-based organizations about the needs of the unhoused community members. If approved, The City of Livermore will contract with HCEB, Open Heart Kitchen, and City Serve of the Tri-Valley to support operating costs for the Vineyard Resource Center, Open Heart Refuge shelter, and CityServe to address the acute homeless crisis and provide services to residents in the Tri-Valley at risk for homelessness.

The following table contains activity estimates for the proposed PLHA Plan allocations:

PLHA Activity / Funding Year	2020	2021	2022*	2023**	2020-2023**
Shelter Operations/Housing Navigation/Rental Assistance (HCEB & Open Heart Refuge)	$243,103	$267,527	$134,085*	$137,311**	$782,025**
Rental Assistance (City Serve)	$64,827	$71,340	$35,756*	$36,616**	$208,540**
Total	**$307,930**	**$338,867**	**$169,841***	**$173,927****	**$990,565****

*Pending 2023 PLHA NOFA application and award.
**Pending 2024 PLHA NOFA funding release.

The City has received approval from HCD for PLHA allocations for years 2020 and 2021, therefore once approved by City Council, staff will move forward with the proposed agencies to contract for those funds. To access PLHA funds, the City Council must adopt the State-approved Resolution approving the amended plan, attached as Exhibit A, authorize the City Manager, or her designee to apply for the 2023 PLHA NOFA funding, and adopt the resolution authorizing the City Manager, or her designee, to execute all documents related to the execution of grant agreements, with subgrantees receiving allocations of funds from the CA State Housing and Community Development PLHA program.

FISCAL IMPACTS

Amending the plan will redistribute annual funds between the approved projects. The City was awarded $859,619 in PLHA funds for the first three years of the grant term and estimates that a total of

$1,251,240 will be allocated over the five-year planning period. The PLHA program does not require local matching funds.

COMMUNITY PILLAR

1: A Safe Community that Thrives.

GOAL

8: Expand and improve access to human services.

ATTACHMENTS

1. HCD Authorizing Resolution
2. Resolution
3. Exhibit A - Amended 2019-2023 PLHA Plan

Prepared by: Natalia Gilina
Housing Administrative Technician

Approved by:

Marianna Marysheva
City Manager

Fiscal Review by:

Tina Olson
Administrative Services Director

City Council of the City of Livermore

AUTHORIZING RESOLUTION OF City Council of the City of Livermore

AUTHORIZING THE APPLICATION AND AMENDING THE PLHA PLAN FOR THE PERMANENT LOCAL HOUSING ALLOCATION PROGRAM

Resolution of the City Council of the City of Livermore.

City Council of the City of Livermore hereby consents to, adopts, and ratifies the following resolution:

A. WHEREAS, the Department is authorized to provide up to $296 million under the SB 2 Permanent Local Housing Allocation Program Formula Component from the Building Homes and Jobs Trust Fund for assistance to Cities and Counties (as described in Health and Safety Code section 50470 et seq. (Chapter 364, Statutes of 2017 (SB 2)).

B. WHEREAS, the State of California (the "State"), Department of Housing and Community Development ("Department") issued a Notice of Funding Availability ("NOFA") dated 12/29/2023 under the Permanent Local Housing Allocation (PLHA) Program;

C. WHEREAS, City Council of the City of Livermore is an eligible Local government who has applied for program funds to administer one or more eligible activities, or a Local or Regional Housing Trust Fund to whom an eligible Local government delegated its PLHA formula allocation.

D. WHEREAS, the Department may approve funding allocations for PLHA Program, subject to the terms and conditions of the Guidelines, NOFA, Program requirements, the Standard Agreement, and other contracts between the Department and PLHA grant recipients;

NOW THEREFORE BE IT RESOLVED THAT:

1. If Applicant receives a grant of PLHA funds from the Department pursuant to the above referenced PLHA NOFA, it represents and certifies that it will use all such funds in a manner consistent and in compliance with all applicable state and federal statutes, rules, regulations, and laws, including without limitation all rules and laws regarding the PLHA Program, as well as any and all contracts Applicant may have with the Department.

2. Applicant is hereby authorized and directed to receive a PLHA grant, in an amount not to exceed the five-year estimate of the PLHA formula allocations, as stated in Appendix B of the current NOFA $1,251,240 in accordance with all applicable rules and laws.

3. Applicant hereby agrees to use the PLHA funds for eligible activities as approved by the Department and in accordance with all Program requirements, Guidelines, other rules, and laws, as well as in a manner consistent and in compliance with the Standard Agreement and other contracts between the Applicant and the Department.

4. **Pursuant to Sections 302(c)(4) and 302(c)(5) of the Guidelines, Applicant's PLHA Plan Amendment for the 2020-2023 Allocations is attached to this resolution, and Applicant hereby adopts this PLHA Plan Amendment and certifies compliance with all public notice, public comment, and public hearing requirements in accordance with the Guidelines.**

5. **If applicable**: Applicant certifies that it was delegated by N/A to submit an application on its behalf and administer the PLHA grant award for the formula allocation of PLHA funds, pursuant to Guidelines Section 300(c) and 300(d), and the legally binding agreement between the recipient of the PLHA funds and the Applicant is submitted with the PLHA application.

6. **If applicable:** Applicant certifies that it has or will subgrant some or all of its PLHA funds to another entity or entities. Pursuant to Guidelines Section 302(c)(3), "entity" means a housing developer or program operator, but does not mean an administering Local government to whom a Local government may delegate its PLHA allocation.

7. **If applicable:** Applicant certifies that its selection process of these subgrantees was or will be accessible to the public and avoided or shall avoid any conflicts of interest.

8. **If applicable:** Pursuant to Applicant's certification in this resolution, the PLHA funds will be expended only for eligible Activities and consistent with all program requirements.

9. **If applicable:** Applicant certifies that, if funds are used for the acquisition, construction or rehabilitation of for-sale housing projects or units within for-sale housing projects, the grantee shall record a deed restriction against the property that will ensure compliance with one of the requirements stated in Guidelines Section 302(c)(6)(A), (B) and (C).

10. **If applicable:** Applicant certifies that, if funds are used for the development of an Affordable Rental Housing Development, the Local government shall make PLHA assistance in the form of a low-interest, deferred loan to the Sponsor of the Project, and such loan shall be evidenced through a Promissory Note secured by a Deed of Trust and a Regulatory Agreement shall restrict occupancy and rents in accordance with a Local government-approved underwriting of the Project for a term of at least 55 years.

11. Applicant shall be subject to the terms and conditions as specified in the Standard Agreement, the PLHA Program Guidelines and any other applicable SB 2 Guidelines published by the Department.

12. City Manager or her designee is/are authorized to execute the PLHA Program Application, the PLHA Standard Agreement and any subsequent amendments or modifications thereto, as well as any other documents which are related to the Program or the PLHA grant awarded to Applicant, as the Department may deem appropriate.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Livermore this _____ day of, _____ 2024, by the following vote:

AYES: _____ ABSTENTIONS: _____ NOES: _____ ABSENT: _____

Signature of Approving Officer: _____

_____

INSTRUCTION: The attesting officer cannot be the person identified in the resolution as the authorized signor.

CERTIFICATE OF THE ATTESTING OFFICER

The undersigned, Officer of _____ does hereby attest and certify that the _____ Resolution is a true, full and correct copy of a resolution duly adopted at a meeting of the _____ which was duly convened and held on the date stated thereon, and that said document has not been amended, modified, repealed, or rescinded since its date of adoption and is in full force and effect as of the date hereof.

ATTEST:_____
Signature of Attesting Officer

_____
Print Name and Title of Attesting Officer

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION ADOPTING THE PERMANENT LOCAL HOUSING ALLOCATION PROGRAM (PLHA) PLAN AMENDMENT AND AUTHORIZING EXECUTION OF AN AGREEMENT TO RECEIVE FUNDING FROM PLHA IN AN AMOUNT NOT-TO-EXCEED $1,251,240 AND AUTHORIZING THE EXECUTION OF GRANT AGREEMENTS BETWEEN THE CITY OF LIVERMORE AND SUBGRANTEES TO APPROPRIATE THESE FUNDS

One of the Goals and Objectives of the City of Livermore Strategic Plan is to expand and improve access to human services and to seek additional funding for housing and human services needs in Livermore.

The State of California Department of Housing and Community Development is authorized to provide up to $296 million under the SB 2 Permanent Local Housing Allocation Program Formula Component from the Building Homes and Jobs Trust Fund for assistance to cities and counties (as described in Health and Safety Code section 50470 et seq. (Chapter 364, Statutes of 2017 (SB 2)).

On December 29, 2023, the State of California (the “State”), Department of Housing and Community Development (“Department”) issued a Notice of Funding Availability (“NOFA”) under the Permanent Local Housing Allocation (PLHA) Program.

The Permanent Local Housing Allocation (PLHA) Program allows cities and counties to apply for financial assistance for eligible housing and homeless prevention projects and programs to assist in addressing the unmet housing needs of the local community. The City of Livermore is eligible to apply for the 2023 PLHA formula allocation.

On November 14, 2022, the City Council approved an application to State Department for funding under the PLHA program and approved a five-year plan for the use of an estimated total of $1,251,240 in grant funds through City Resolution No. 2022-187. The activities in the PLHA plan included the Vineyard 2.0 project and the rehabilitation and expansion of shared housing units serving extremely low-income and special needs populations.

The Proposed PLHA Plan amendment intends to reallocate years 2-5 of PLHA funds to activities consistent with the PLHA program guidelines for assisting persons who are experiencing or at risk of homelessness, including, but not limited to providing rapid rehousing, rental assistance, supportive case management services that allow people to obtain and retain housing, and operating and capital costs for navigation centers and emergency shelters.

The City of Livermore ("City") intends to apply for the 2023 PLHA Plan allocation and provide an application along with the amended five-year plan for the activities consistent with the program guidelines for an estimated total of $1,042,700 of remaining PLHA funds.

If awarded, the City intends to contract with Housing Consortium of the East Bay (HCEB), Open Heart Kitchen ("Open Heart Kitchen"), and City Serve of the Tri-Valley ("City Serve") to provide housing navigation, shelter operations, and rental assistance programs in the scope of homeless prevention services to Tri-Valley residents at risk of homelessness.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore that it hereby:

1. Adopts the Permanent Local Housing Allocation (PLHA) Plan amendment, attached hereto as Exhibit A, and authorizes the City Manager, or her designee, to sign all documents and execute any agreements, including any amendments thereto, necessary for the City to receive PLHA program funds, if said funds are awarded to the City, in an amount not-to-exceed $1,251,240.

2. Authorizes the City Manager, or her designee, to execute grant agreements, including any amendments thereto, with subgrantees that will receive allocations of PLHA funds from the City, including contracts with subgrantees exceeding $100,000, consistent with the allowable activities specified in the PLHA Program Notice of Funding Availability, if said funds are awarded to the City.

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On motion of Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted on March 25, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

ATTEST:

_____
Deborah L. Elam
Acting City Clerk

APPROVED AS TO FORM:

/s/ Katherine Mirassou
Katherine Mirassou
Deputy City Attorney

Exhibit A – PLHA Plan Amendment

EXHIBIT A

§302(c)(4) Plan

Rev. 02/01/24

§302(c)(4)(A) Describe the manner in which allocated funds will be used for eligible activities.

The proposed amended plan designates 2020-2023 funding allocations to be used for the services provided through programs assisting the homeless population with rapid rehousing, rental assistance, overnight shelter operations, intensive case management, and other supportive services. These are examples of the services that are provided at the Vineyard Resource Center (VRC) by HCEB, Open Heart Kitchen Overnight Refuge, and CityServe.
Vineyard Resource Center (Vineyard RC) is a mixed-use development, that addresses key homeless crisis areas. The Vineyard RC opened its doors on January 22, 2024. Overnight Shelter Refuge at the Vineyard RC is operated by Open Heart Kitchen and is open seven days a week providing meals through Open Heart Kitchen; Overnight Refuge Shelter for 20 beds including breakfast and dinner daily; showers and laundry services. During the first month of operation, the Vineyard Resource Center and Open Heart Kitchen facility served 447 unduplicated clients and provided 346 showers, 93 hygiene services, and 133 laundry services. The acute need in the community is to maintain the shelter open 7 days a week. Staff proposes to allocate year 2,3,4,5 of the PLHA funding to expand operations of the Center for the shelter to remain open 7 days a week to provide continuous care for persons experiencing homelessness, and provide housing navigation and rental assistance.

§302(c)(4)(B) Provide a description of the way the Local government will prioritize investments that increase the supply of housing for households with incomes at or below 60 percent of Area Median Income (AMI).

The Vineyard Housing Resource Center serves the homeless population of Tri-Valley, the services are targeted to households at or below 30% AMI. All grant agreements will contain provisions in conformance with federal rules contained in 24 CFR Section 576.104. Funds will be used to operate the shelter and provide housing navigation services in conjunction with the shelter and homeless resource center. Rental assistance will be offered through the housing navigator program and other services providers as necessary to help a person experiencing or at risk of homelessness to move as quickly as possible into permanent housing and achieve stability. Rental assistance will be offered in a manner consistent with Housing First practices and PLHA program regulations.

§302(c)(4)(C) Provide a description of how the Plan is consistent with the programs set forth in the Local Government's Housing Element.

The proposed plan amendment aligns itself with the current Housing Element, adopted by the City Council in March of 2023. The implementing actions address multiple goals and build upon each other, creating a comprehensive approach to meeting the community's housing needs. The following goals of the adopted Housing Element are aligned with the proposed plan amendment:
Goal 1. Diverse Housing Choices. - Policy 1.5: Facilitate the development of housing for individuals with special needs, including those with disabilities, large families, seniors, and people experiencing homelessness. Program 1.5.3: Special Housing Needs: The Rental Assistance program targets unhoused families, and individuals by providing long-term rental assistance.
Goal 3. Affordable Housing Production and Preservation; Policy 3.2: Pursue and utilize a variety of funding resources and partnerships to develop housing that is affordable to lower- and moderate-income households, families, and seniors. Program 3.2.2: Support Acquisition and Development of New Sites for Affordable Housing. The plan amendment will provide acutely needed funding for nonprofit organizations like the Housing Consortium of the East Bay (HCEB) which currently operates the HRC. Program 3.2.3: Partner with Affordable Housing and Service Providers; and Program 3.4.2: Rental Assistance and Tenant Support Services. The Rental Assistance program will be administered by both HCEB and CityServe, providers of crisis stabilization for homeless families and individuals in the Tri-Valley area. Open Heart Kitchen operates the Overnight Refuge Shelter as part of the Vineyard Resource Center.

Activities Detail (Activities Detail (Must make a selection on Formula Allocation Application worksheet under Eligible Activities, §301))

§301(a)(6) Assisting persons who are experiencing or At risk of homelessness, including, but not limited to, providing rapid rehousing, rental assistance, supportive/case management services that allow people to obtain and retain housing, operating and capital costs for navigation centers and emergency shelters, and the new construction, rehabilitation, and preservation of permanent and transitional housing.

§302(c)(4)(E)(i) Provide a detailed and complete description of how allocated funds will be used for the proposed Activity.

For years 2, 3, 4, and 5 of the proposed amended 5-year PLHA plan, the allocated funds will be used to support the activities consistent with the PLHA guidelines assisting persons experiencing or at risk of homelessness. The funding will support operations of the Vineyard Resource Center project. The scope of services provided includes the full-time position of Housing Navigator,operations of the seven-day per week shelter for persons experiencing homelessness, and rental assistance for persons experience or at risk of homelessness. The Housing Navigator position will provide necessary housing guidance and supportive case management to assist homeless individuals and households in finding permanent housing, housing applications, and housing counseling. The rental assistance programs will provide homeless individuals and households of the Tri-Valley with deposit assistance and termed rental assistance as needed to prevent or eliminate homelessness.

Complete the table below for each proposed Activity to be funded with 2020-2023 PLHA allocations. If a single Activity will be assisting households at more than one level of Area Median Income, please list the Activity as many times as needed to capture all of the AMI levels that will be assisted, but only show the percentage of annual funding allocated to the Activity one time (to avoid double counting).

Funding Allocation Year	2020	2021	2022	2023											
Type of Activity for Persons Experiencing or At Risk of Homelessness	Shelter Operations, Housing Navigation, Rental	Shelter Operations, Housing Navigation, Rental	Shelter Operations, Housing Navigation, Rental	Shelter Operations, Housing Navigation, Rental											
§302(c)(4)(E)(i) Percentage of Funds Allocated for the Proposed Activity	100%	95%	95%	95%											
§302(c)(4)(E)(ii) Area Median Income Level Served	30%	30%	30%	30%											**TOTAL**
§302(c)(4)(E)(ii) Unmet share of the RHNA at AMI Level **Note: complete for years 2020, 2021, 2022 only**	758	648	537	433											2376
§302(c)(4)(E)(ii) Projected Number of Households Served	110	111	104	104											429
§302(c)(4)(E)(iv) Period of Affordability for the Proposed Activity **(55 years required for rental housing projects)**	55 years	55 years	55 years	55 years											

§302(c)(4)(E)(iii) A description of major steps/actions and a proposed schedule for the implementation and completion of the Activity.

The construction of the Vineyard 2.0 Resource Center project was completed in December of 2023 and the Housing Resource Center opened its doors on January 22, 2024. The City will contract with the property manager, HCEB, that operates the Vineyard Housing Resource Center to expand the operations, fill the new Housing Navigator position, and provide housing guidance and case management to homeless individuals and households. The Open Heart Kitchen is currently operating the Overnight Refuge Shelter in the Vineyard Resource Center, showers, laundry, and meals. The Rental Assistance Program will be administered by both HCEB at the Vineyard Resource Center and CityServe. The City will enter into grant agreements with HCEB, Open Heart Kitchen, and CityServe. HCEB, at the Vineyard HRC, and the CityServe of Tri-Valley will be the entities to receive the funds from the grantee for rental assistance.

File Name:	**Plan Adoption Reso**	***§302(c)(4)(D)*** *Evidence that the Plan was authorized and adopted by resolution by the Local jurisdiction and that the public had an adequate opportunity to review and comment on its content.*	Uploaded to HCD?	

LIVERMORE
CALIFORNIA

CITY COUNCIL STAFF REPORT **ITEM NO. 6.3**

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Paul Spence, Assistant City Manager

SUBJECT: Hearing to consider a request for an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Development Code Amendment, Vesting Tentative Parcel Map, Vesting Tentative Tract Map, Planned Development, and Site Plan Design Review for the SMP 39 and 40 Project to zone for and develop light industrial uses near the northwest part of the City.

RECOMMENDED ACTION

Planning Commission and staff recommend the City Council take the following actions to authorize the future development of light industrial buildings on the SMP 39 and SMP 40 properties:

1. Adopt a resolution certifying the Final Environmental Impact Report for the SMP 39/SMP 40 Project and adopting California Environmental Quality Act Findings, A Statement of Overriding Considerations, and a Mitigation Monitoring and Reporting Program;
2. Adopt a resolution approving General Plan Amendment (GPA) 21-001, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008;
3. **Introduce an ordinance** and waive the first reading pre-zoning the SMP 39 and SMP 40 properties to Planned Development - Industrial (PD-I) 22-001 and the Additional Annexation Only Parcels to Open Space - Floodplain (OS-F) consistent with Planned Development - Industrial (PD-I) 22-001, Zoning Map Amendment (ZMA) 21-002, and Development Code Amendment (DCA) 21-005;
4. **Introduce an ordinance** and waive the first reading authorizing execution of Pre-Annexation and Development Agreement (DA) 21-001;
5. **Introduce an ordinance** and waive the first reading authorizing execution of Pre-Annexation and Development Agreement (DA) 23-002; and
6. Adopt a resolution authorizing submittal of an application to LAFCo for a Sphere of Influence and Annexation modification consistent with Annexation and Prezoning (APZ) 21-003.

SUMMARY

In September 2021, Overton Moore Properties applied to the City of Livermore for several land use entitlements for the properties known as SMP 39 and SMP 40 (Project). The Project includes annexation and development of SMP 39 (Assessor Parcel Number [APN] 904-3-1-4) and SMP 40 (APN 904-10-2-2) with approximately 1.51 million square feet of light industrial uses. In addition, the Project includes annexation of four additional parcels (APNs 904-10-2-3, -5, -7, and -8) located east of SMP 40 (Additional Annexation Only Parcels). Development is not proposed on the Additional Annexation Only Parcels because they are proposed to remain as open space.

SMP 39 is vacant grassland and approximately 52 acres, located west of the Oaks Business Park and south of West Jack London Boulevard and the Livermore Municipal Airport. SMP 40 is also vacant grassland and approximately 41 acres, located south of the Oaks Business Park and west of Isabel Avenue/State Route (SR) 84. The Additional Annexation Only Parcels are also vacant grassland (except for Zone 7 flood control facilities and PG&E infrastructure) and consist of four parcels ranging from 0.2 acre to 5.76 acres, located immediately east of SMP 40. See Attachment 5, Approximate Project Site Boundaries Map for the Project location.

The Project includes off-site roadway, bicycle lane, and other public improvements along West Jack London Boulevard adjacent to SMP 39 and on- and off-site trail improvements adjacent to and east of SMP 40. The proposed Planned Development zoning for both SMP 39 and SMP 40 will allow some typical light industrial uses such as warehouse and distribution (although limited to a maximum of 20% of floor space in SMP 39) but other even more economically desirable and higher job generating uses such as research and development facilities, professional and administrative offices, experimental and testing laboratories, and manufacturing uses.

The Project requires several land use entitlements including an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Planned Development, Development Code Amendment, Vesting Tentative Subdivision Maps, and Site Plan Design Review for SMP 40. A Site Plan Design Review entitlement is required for the actual development of SMP 39 and SMP 40 but is only currently proposed for SMP 40 at this time. A Site Plan Design Review entitlement will be required at a later date for the future development of SMP 39 and will be subject to Planning Commission review and approval. See Attachment 1, Staff Analysis, for more details on the project.

According to the applicant, they plan to construct the two SMP 40 buildings in the very near future. The applicant has entered into a lease agreement with Lam Research, a company currently located in Livermore at 1 Portola Avenue, to expand their business and occupy the larger of the two buildings on the SMP 40 property.

The Planning Commission (PC) voted unanimously to recommend the City Council approve the Project on March 5, 2024, as described in more detail in the Discussion section below. See Attachments 2, 3 and 4 below for the PC staff report, supplemental materials and minutes.

DISCUSSION

BACKGROUND

On September 22, 2021, Overton Moore Properties (Applicant) applied to the City of Livermore for several land use entitlements to bring SMP 39 into the City's Sphere of Influence (SOI), annex SMP 39 and SMP 40, and develop SMP 39 and SMP 40 with approximately 1.51 million square feet (sf) of light

industrial land uses. The original Project proposal included bringing SMP 38 (west of and adjacent to SMP 39) into the City of Livermore's SOI and annexing four additional parcels (Additional Annexation Only Parcels) east of SMP 40. City staff requested including SMP 38 and the Additional Annexation Only Parcels to create logical city boundaries that align with the City's South Livermore Urban Growth Boundary (UGB). Collectively, these elements constituted the SMP 39/SMP 40 Project (Project). Refer to Attachment 5 for the Approximate Project Site Boundaries Map.

The SMP numbers are Surface Mining Permit (SMP) numbers applicable to each site. The Surface Mining Permits for each of the sites were approved in 2004 by Alameda County to allow for the extraction of sand and gravel (i.e., aggregate) within the sites; however, aggregate mining has not occurred within any of the sites, and they are currently vacant grassland. Staff is recommending the actual SMP Surface Mining Permit rights be forfeited by the applicant through the Development Agreement and conditions of approval, to guarantee mining does not occur on SMP 39 and 40 in the future.

The Project originally included an SOI amendment to move SMP 38 from the City of Pleasanton's SOI to the City of Livermore's SOI. Approval of the SOI amendment would not have altered the existing land use or zoning designation of SMP 38. Annexation of SMP 38 into the City of Livermore was not proposed as part of the Project, nor was development of SMP 38. However, during the entitlement review process, the City of Pleasanton expressed concerns related to potential impacts to their city from the future SMP 38 development. Following discussion with the City of Pleasanton, SMP 38 was removed from the Project. SMP 38 is not shown on the project maps since it is no longer part of the project.

The City of Pleasanton staff has agreed to participate in a future discussion related to the SOI amendment for SMP 38 when a development proposal is brought forth for the property. Furthermore, City of Pleasanton staff is proposing a resolution of support to move SMP 39 into Livermore's SOI for consideration by their City Council on March 19, 2024.

On November 8, 2021, the City Council authorized staff to proceed with concurrent review of the requested Project entitlements and negotiating terms for a Pre-Annexation/Development Agreement with the Applicant. On March 28, 2022, the City entered into a Professional Services Agreement with Rincon Consultants, Incorporated to provide planning assistance on the entitlement and environmental review.

The Project was reviewed by the City Airport Commission and Alameda County Airport Land Use Commission (ALUC) on October 2, 2023, and October 9, 2023, respectively and determined the project to be compatible with the Livermore Airport Land Use Compatibility Plan (ALUCP), with the condition that avigation easements be required for each of the Project properties.

PROJECT DESCRIPTION

The Project covers approximately +/-105 acres near the northwest portion of the City in unincorporated Alameda County. SMP 39, SMP 40, and the Additional Annexation Only Parcels are within the City of Livermore South Livermore UGB; however, SMP 39 is within the City of Pleasanton's SOI. Accordingly, an SOI amendment is proposed to bring SMP 39 into City of Livermore's SOI (Attachment 6).

SMP 39 is vacant grassland and approximately 52 acres, located west of the Oaks Business Park and south of West Jack London Boulevard and the Livermore Municipal Airport. SMP 40 is also vacant grassland and approximately 41 acres, located south of the Oaks Business Park and west of Isabel Avenue/State Route (SR) 84. The Additional Annexation Only Parcels are also vacant grassland (except

for Zone 7 flood control facilities and PG&E infrastructure) and consist of four parcels ranging from 0.2 acre to 5.76 acres, located immediately east of SMP 40. These four parcels are separately owned by four different agencies including the City of Livermore, Zone 7 Water Agency, PG&E, and Caltrans.

In addition to the SOI amendment for SMP 39, the Project includes annexation of SMP 39 into the City of Livermore. The Project also includes annexation of SMP 40 and the Additional Annexation Only Parcels, which are currently within the City of Livermore's SOI, into the City of Livermore (Attachment 7). The Project includes development of SMP 39 and SMP 40 with approximately 1.51 million sf of light industrial uses. Development is not proposed on the Additional Annexation Only Parcels.

The proposed PD zoning for both SMP 39 and 40 will allow some typical light industrial uses such as warehouse and distribution (although limited to a maximum of 20% of floor space in SMP 39) as well as other more economically desirable and higher job generating uses such as research and development facilities, professional and administrative offices, experimental and testing laboratories, and manufacturing uses (Attachment 25). In addition, SMP 40 will be subdivided into two parcels to accommodate two industrial tilt-up buildings: one totaling 470,530 sf and the other 288,750 sf. SMP 39 is only being subdivided at this time into six parcels for future light industrial buildings projected to range in size from approximately 89,400 to 183,600 sf of building floor area.

The Project includes construction of all necessary public improvements including street and utility connections and pedestrian, bicycle, and landscaping improvements. Specifically, for SMP 39, the Project includes right-of-way dedication for the ultimate build out of West Jack London Boulevard, as described in the City's General Plan. Ultimate buildout of West Jack London Boulevard is anticipated to consist of four through lanes, including two through lanes on each side, a landscaped median in the center of the roadway, as well as an eight-foot bicycle lane on each side of the roadway, separated from the through lanes by a two-foot buffer. The applicant will be required to build part of these improvements along their frontage on the south side of West Jack London Boulevard, including the median, when the applicant develops the SMP 39 site.

The Project also includes re-construction of an at-grade, paved multi-use trail within a 38.5-foot trail easement along the SMP 39 frontage on the south side of West Jack London Boulevard, consistent with the City's Active Transportation Plan (ATP). This would provide a connection to the existing trail along the western boundary of the Oaks Business Park and eventually to the Arroyo Mocho Trail on the east side of Isabel Avenue/SR 84.

The Project includes a paved at-grade, on-site trail along the boundaries of the SMP 40 property, consistent with the ATP. Specifically, the on-site trail would extend from the northeastern corner of the SMP 40 property, along the property's eastern, southern, and western boundaries, before connecting to an existing off-site paved at-grade trail north of the SMP 40 property, which extends along the west side of the Oaks Business Park to the north and connects to the trail on West Jack London Boulevard. These on-site trail alignments for SMP 39 and 40 are shown in Attachments 8 and 9, respectively.

In addition, the Project includes a new off-site trail connection from the Project site to the existing Arroyo Mocho Trail consistent with the ATP, located on the east side of Isabel Avenue/ SR 84. Three options for the off-site trail connection were considered and evaluated in the EIR, including the following, and shown in Attachment 10:

- Trail Connection Option 1 – At-Grade Crossing at Discovery Drive;

- Trail Connection Option 2 – Undercrossing at Isabel Bridge; and
- Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84.

Following evaluation of each of the trail connection options, including pedestrian and bicyclist safety, ease of use, and storm maintenance-related considerations, Planning Commission and staff are recommending Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84.

If the City Council approves Trail Connection Option 3, the applicant will prepare design and construction documents and submit necessary permits in coordination with the City, Caltrans, and other responsible agencies. The applicant will also pay a portion of bridge costs and construct the bridge as explained in the Development Agreement section in Attachment 1, Staff Analysis.

The Project includes the following entitlements:

- General Plan Amendment (GPA) 21-001 to designate SMP 39 and SMP 40 as Low Intensity Industrial (LII) and the Additional Annexation Only Parcels as Parks, Trailways, and Recreation Areas (OSP), consistent with their respective adjacent land uses.
- Annexation/Prezoning (APZ) 21-003 to prezone SMP 39 and SMP 40 to Planned Development – Industrial (PD-I) 22-001 to allow for a mixture of industrial and related uses and prezoning the Additional Annexation Only Parcels to Open Space-Floodplain (OS-F). In addition, the entitlement would authorize an application to the Alameda County Local Agency Formation Commission (LAFCo) for a SOI change and annexation into the City of Livermore. LAFCo is the final approval authority for the annexation and SOI change. The City Council is the final review authority on the remainder of the listed land use entitlements.
- Zoning Map Amendment (ZMA) 21-002, Planned Development Zoning (PD-I) 22-001, and Development Code Amendment (DCA) 21-005 to rezone SMP 39, SMP 40, and the Additional Annexation Only Parcels. SMP 39, SMP 40, and the Additional Annexation Only Parcels are currently zoned Agricultural (A) in Alameda County with an overlay permitting quarry operations on SMP 39 and SMP40 only. These entitlements would rezone SMP 39 and SMP 40 to PD-I 22-001 that will allow a mixture of Industrial and related uses and the Additional Annexation Only Parcels to OS-F for continued open space protection near the Arroyo Mocho.
- Subdivision (SUB) 21-008 and (SUB) 21-009 to approve a Vesting Tentative Tract Map for SMP 39 (Attachment 8) and a Vesting Tentative Parcel Map for SMP 40 (Attachment 9). SMP 39 will be subdivided into six lots, ranging in size from approximately 5.75 acres to 11.76 acres along with associated improvements. SMP 40 will be subdivided into two lots, approximately 24.1 acres and 16.5 acres, respectively, along with associated improvements.
- Site Plan Design Review (SPDR) 21-008 to ensure the architecture and landscape design of the project complies with City standards. This entitlement is for SMP 40 only. A Site Plan Design Review entitlement will be required at a later date for the future development of SMP 39 and will be subject to review and approval by Planning Commission.
- Development Agreement (DA) 21-001 and DA 23-002 to secure the Applicant's entitlements until the Project properties are annexed into the City. Further, the DAs establish terms and obligations for public benefits, including the Applicant’s financial contribution toward and construction of the off-site trail improvements and financial contribution to the City’s Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001.

DESCRIPTION, CONTEXT, AND ANALYSIS

For additional project description detail and site context, and a summary of the proposed Environmental Impact Report (EIR) required per CEQA, please review the attached Staff Analysis memo (Attachment 1).

PLANNING COMMISSION AND PUBLIC COMMENT

On March 5, 2024, the Planning Commission considered the Project at a public hearing and unanimously voted to recommend the City Council approve the Project subject to minor modifications to the design of on-site trail connection, the Transportation Demand Management (TDM) Program reporting requirements, and tree species located near the proposed employee break areas. The Draft Planning Commission meeting minutes summarize the discussion (Attachment 4), which included public comments supporting and opposing the project, the use of local labor, and the environmental analysis. Refer to Attachment 2 for the Planning Commission staff report.

Prior to the public hearing, staff received 10 public comments (Attachment 3) regarding the use of local labor and the environmental analysis. In addition, the Planning Commission discussed the proposed zoning, environmental analysis, site plan, the proposed transportation demand management program, stormwater facilities, agricultural impacts, LAFCo process, the proposed development agreements, and anticipated community benefits.

ENVIRONMENTAL DETERMINATION

As described in the California Environmental Quality Act (CEQA) Resolution, an Environmental Impact Report was prepared for the Project. Planning Commission and staff recommend the City Council certify the Final Environmental Impact Report (see Attachment 11). A summary of the findings and conclusions in the Final EIR are described in Attachment 1, Staff Analysis.

FISCAL AND ADMINISTRATIVE IMPACTS

Upon annexation, the City would receive a portion of Project area's property taxes and sales taxes. These would be collected and deposited into the City's General Fund, which the City would use to fund essential City services. These taxes and fees would offset costs the City would incur associated with providing urban services such as maintaining street and sidewalk improvements, police and fire, parks, library services and other community amenities. In addition, the City would receive annual sewer service fees used to maintain the wastewater treatment and conveyance system. The Project will also create an undetermined amount of temporary construction jobs and permanent jobs to serve the future businesses that will have positive economic spin-off benefits for the local economy.

The Applicant will pay the costs associated with the annexation process including the preparation of all necessary LAFCo application materials and City staff time through the City's Annexation/Prezoning application fee.

The Applicant will also pay all the design and construction costs of public improvements, with the exception of a portion of the off-site trail improvement construction costs. As described in the Staff Analysis (Attachment 1), the estimated cost of these improvements are approximately $2.5 million. The Development Agreement for SMP 40 requires the Applicant to contribute $750,000 towards these improvements. The City and Applicant will diligently pursue grant funding opportunities to fund the remaining cost. In the event that a grant funding opportunity is not successful, the City will credit the Applicant for constructing the off-site trail improvements using Traffic Impact Fees, less the $750,000 Applicant contribution.

Finally, the applicant will contribute $100,000 to the City's Office of Innovation and Economic Development Department to help market the SMP 39 site to permitted and desirable businesses such as research and development facilities, professional and administrative offices, experimental and testing laboratories, and manufacturing uses that support an innovation-driven economy, generate high wage jobs, or generate substantial sales tax revenues.

COMMUNITY PILLAR

2. Economy that Prospers

GOAL

4. Facilitate the development of commercial and industrial projects that provide high quality local jobs and support a diverse a local economy

ATTACHMENTS

1. Staff Analysis
2. Planning Commission Staff Report
3. Planning Commission Supplemental Materials
4. Draft Planning Commission Minutes
5. Approximate Site Boundaries Map
6. Proposed Sphere of Influence Amendment Area
7. Proposed Annexation Area
8. SMP 39 Development Plans
9. SMP 40 Development Plans
10. Proposed Trail Connection Options
11. SMP 39-SMP 40 Project Environmental Documents
12. Resolution - CEQA EIR
13. Exhibit A - Planning Commission Resolution CEQA EIR
14. Exhibit B - Final EIR for the SMP 39-SMP 40 Project
15. Exhibit C - Findings Facts in Support of Findings and Statement of Overriding Considerations
16. Exhibit D - Mitigation Monitoring and Report Program for the SMP 39-SMP 40 Project
17. Exhibit E - Response to Comments Memorandum and Erratum
18. Resolution - Project Approval
19. Exhibit A - Planning Commission Resolution - Project Approval
20. Exhibit B - General Plan Amendment (GPA) 21-001
21. Exhibit C - Conditions of Approval
22. Ordinance - APZ,PD,ZMA,DCA
23. Exhibit A - Planning Commission Resolution - Project Approval
24. Exhibit B - Zoning Map Amendment (ZMA) 21-002
25. Exhibit C - Draft Planned Development Zoning
26. Ordinance - SMP 39 Development Agreement
27. Exhibit A - SMP 39 Development Agreement
28. Exhibit B - Planning Commission Resolution - Project Approval

29. Ordinance - SMP 40 Development Agreement
30. Exhibit A - SMP 40 Development Agreement
31. Exhibit B - Planning Commission Resolution - Project Approval
32. Resolution - Application to LAFCo
33. Exhibit A - Annexation Boundary Map - SMP 39
34. Exhibit B - Annexation Boundary Map - SMP 40
35. Exhibit C - SMP 39 - 40 Draft Tax Exchange Agreement

Prepared by: Ashley Vera
Senior Planner

Approved by:

Marianna Marysheva
City Manager

Fiscal Review by:

Tina Olson
Administrative Services Director

LIVERMORE
CALIFORNIA

STAFF ANALYSIS

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Paul Spence, Assistant City Manager

SUBJECT: Hearing to consider a request for an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Development Code Amendment, Vesting Tentative Parcel Map, Vesting Tentative Tract Map, Planned Development, and Site Plan Design Review for the SMP 39 and 40 Project to zone for and develop light industrial uses near the northwest part of the City.

PROJECT SITE CONTEXT

SMP 39 is vacant grassland and approximately 52 acres, located west of the Oaks Business Park and south of West Jack London Boulevard and the Livermore Municipal Airport. SMP 40 is also vacant grassland and approximately 41 acres, located south of the Oaks Business Park and west of Isabel Avenue/State Route (SR) 84. The Additional Annexation Only Parcels are also vacant grassland (except for Zone 7 flood control facilities and PG&E infrastructure) and consist of four parcels ranging from 0.2 acre to 5.76 acres, located immediately east of SMP 40. These four parcels are separately owned by four different agencies including the City of Livermore, Zone 7 Water Agency, PG&E, and Caltrans. Tables 1 through 3, below, summarize the General Plan land use designation, zoning classification, and existing land use on the SMP 39, SMP 40, and Additional Annexation Only Parcels properties and surrounding properties.

Table 1: SMP 39 Property and Surrounding Land Uses

	General Plan Designation	Zoning Designation	Existing Land Use
North	City of Livermore: Community Facilities – Airport (CF-AIR)	City of Livermore: Airport – Service (AIR-SE)	Livermore Municipal Airport
South	Alameda County: Water Management City of Livermore: Open Space/Sand and Gravel (OSP/S&G)	Alameda County: Agriculture (A) with an overlay permitting quarry operations	Gravel quarries and industrial ponds associated with mining
East	City of Livermore: Low Intensity Industrial (LII)	City of Livermore: Planned Development Industrial (PD-I) 01-003	Oaks Business Park

West	Alameda County: Industrial/Water Management City of Livermore: Open Space/Sand and Gravel (OSP/S&G)/Limited Agriculture (LDAG)	Alameda County: Agriculture (A) with an overlay permitting quarry operations	Primarily vacant, with several structures in the northwest corner of the site related to a former horse ranch. Property includes Alameda County permit for surface mining under Surface Mining Permit 38
Subject Site	Alameda County: Industrial City of Livermore: Open Space/Sand and Gravel (OSP/S&G)	Alameda County: Agriculture (A) with an overlay permitting quarry operations	Vacant

Table 2: SMP 40 Property and Surrounding Land Uses

	General Plan Designation	Zoning Designation	Existing Land Use
North	City of Livermore: Low Intensity Industrial (LII)	City of Livermore: Planned Development Industrial (PD-I) 01-003	Oaks Business Park
South	Alameda County: Industrial City of Livermore: Open Space/Sand and Gravel (OSP/S&G)	Alameda County: Agriculture (A) with an overlay permitting quarry operations	Arroyo Mocho, open fields, railroad tracks, and gravel quarries associated with mining operations
East	Alameda County: Industrial City of Livermore: Open Space/Sand and Gravel (OSP/S&G), Open Space (OSP), and Urban Medium Residential (UM)	Alameda County: Agriculture (A) City of Livermore: Planned Unit Development (PUD) 79-88	Vacant land, PG&E substation, Isabel Avenue/SR 84, and Single-Family Residences
West	Alameda County: Water Management City of Livermore: Open Space/Sand and Gravel	Alameda County: Agriculture (A) with an overlay permitting quarry operations	Vacant land, gravel quarries, and industrial ponds associated with mining
Subject Site	Alameda County: Industrial City of Livermore: Open Space/Sand and Gravel (OSP/S&G)	Alameda County: Agriculture (A) with an overlay permitting quarry operations	Vacant

Table 3: Additional Annexation Only Parcels Property and Surrounding Land Uses

	General Plan Designation	Zoning Designation	Existing Land Use
North	City of Livermore: Low Intensity Industrial (LII)	City of Livermore: Planned Development Industrial (PD-I) 01-003	Oaks Business Park

South	Alameda County: Industrial/Water Management City of Livermore: Open Space/Sand and Gravel (OSP/S&G)	Alameda County: Agriculture (A) with an overlay permitting quarry operations	Arroyo Mocho, open fields, railroad tracks, and gravel quarries associated with mining operations
East	City of Livermore: Open Space (OSP) and Urban Medium Residential (UM)	City of Livermore: Planned Unit Development (PUD) 79-88	Isabel Avenue/SR 84 and Single-Family Residences
West	Alameda County: Water Management City of Livermore: Open Space/Sand and Gravel	Alameda County: Agriculture (A) with an overlay permitting quarry operations on SMP 40	Vacant land, gravel quarries, and industrial ponds associated with mining
Subject Site	Alameda County: Industrial City of Livermore: Open Space/Sand and Gravel (OSP/S&G)	Alameda County: Agriculture (A)	Vacant land, PG&E substation on a portion of the Additional Annexation Only Parcels

STAFF ANALYSIS

General Plan

The Livermore General Plan currently designates SMP 39, SMP 40, and the Additional Annexation Only Parcels as Open Space/Sand and Gravel (OSP/S&G). The OSP/S&G designation is applied to areas of Statewide concern due to their demonstrated level of quality aggregate. This designation primarily allows for open space, with sand and gravel extraction, processing and related activities as a secondary use.

The Project proposes to amend the existing OSP/S&G designation to Low Intensity Industrial (LII) for the SMP 39 and SMP 40 properties to allow for light industrial development. In addition, the Project proposes to change the existing OSP/S&G designation for the Additional Annexation Only Parcels to Parks, Trailways, and Recreation Areas (OSP). Development is not proposed on the Additional Annexation Only Parcels.

The LII designation includes manufacturing, warehousing, research and development facilities, fully-enclosed recycling facilities, and administrative and professional offices. Low-intensity industrial uses are focused around the Livermore Municipal Airport. The OSP designation is applied to areas to be maintained as permanent or semi permanent open space because they have valuable natural or scenic resources, or because they are unsuitable for development due to environmental hazards. This designation includes parks and trails, creeks and arroyos, and areas of scenic value.

The proposed General Plan Amendment to change the land use designation for SMP 39 and SMP 40 from OSP/S&G to LII would is consistent with the following General Plan policies:

- Objective LU-1.1 Locate new development so as to create a consolidated pattern of urbanization, maximizing the use of existing public services and facilities.
    - Response: The project supports light industrial development in proximity to existing light industrial development and includes the use of existing public streets, services, and facilities.
- Policy LU-1.1.P1. The City shall annex all lands currently under County jurisdiction and within the

UGB prior to development in areas designated for urban uses.
    - Response: The project includes the annexation of land currently under Alameda County jurisdiction and within the South Livermore UGB.
- Objective LU-4.2 Ensure that new development complements its local context and minimizes impacts on the environment
    - Response: The light industrial development is compatible with and complements the existing light industrial context, including the Livermore Municipal Airport and the Oaks Business Park. The Project will minimize impacts on the environment by locating development adjacent to these existing industrial uses, limiting residents and other sensitive receptors to impacts such as noise.
- Objective LU-4.3 Designate appropriate areas for industrial uses in order to prevent negative impacts on the health, safety, and welfare of residents.
    - Response: The project proposes industrial development similar to the industrial uses located at the existing Oaks Business Park. SMP 39 is located approximately 2,745 feet from the nearest single-family residences and SMP 40 is located approximately 884 feet from the nearest single-family residences, with State Hwy. 84 located in between. Therefore, these properties are appropriately designated as light industrial use.
- Policy LU-4.3.P1. Industrial development shall be subject to design principles and consistent with General Plan policies.
    - Response: The project's site plan and architectural design is consistent with the Livermore Design Standards and Guidelines.
- Objective LU-4.4 Protect the Municipal Airport from encroachment by incompatible uses.
    - Response: SMP 39 and SMP 40 include light industrial development, which is a compatible land use regarding noise, height/flight clearance, public safety, etc. per the Alameda County Airport Land Use Compatibility Plan (ALUCP), which was confirmed by the Alameda County Airport Land Use Commission on October 9, 2023. In addition, the Livermore Airport Commission on October 2, 2023, found the Project compatible with the Livermore Airport Protection Area and the ALUCP with the condition that avigation easements be required for each of the Project properties. This condition is included in the conditions of approval for the Project (Attachment 21).
- Policy LU-4.4.P1. The City shall encourage development of property within the immediate vicinity of the Airport for light industrial and transportation uses to the extent that noise standards and flight clearance requirements are maintained, and environmental impacts are adequately mitigated.
    - Response: See response above.
- Objective CIR-2.3 Provide a bicycle, pedestrian, and trails network.
    - Response: The project supports this objective by adding to the bicycle, pedestrian and trails network along West Jack London Boulevard, along the SMP 40 property, and an off-site trail connection over Isabel Avenue/SR 84 creating a connection to the Arroyo Bike Trail.
- Objective ED-1.1 Implement policies and actions that will encourage existing businesses to remain and grow in Livermore, and attract a range of new businesses to locate in Livermore.
    - Response: The Project provides new opportunities for job creation by allowing existing businesses to grow in Livermore and attracting new businesses to locate in Livermore, including desired uses in SMP 39 and SMP 40 such as research and development facilities, professional and administrative offices, experimental and testing laboratories, and manufacturing uses. Furthermore, the proposed Development Agreements require the Applicant to provide a financial contribution to the City's Office of Innovation and Economic

Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001.

Annexation/Prezoning

SMP 39, SMP 40, and the Additional Annexation Only Parcels are within the City of Livermore South Livermore UGB; however, SMP 39 is within the City of Pleasanton's SOI. Accordingly, an SOI Amendment SMP 39 is proposed in order to move SMP 39 into the City of Livermore's SOI.

SOI areas are used to plan for the probable physical boundaries and service area of a local agency. Annexation is the process by which unincorporated land is made a part of (incorporated into) the City of Livermore. The Alameda County LAFCo is the local agency that oversees boundary changes, including SOI amendments and annexations, to cities and special districts. Generally, LAFCo's purpose is to ensure the orderly formation of local government agencies to preserve agricultural and open space lands, discourage urban sprawl, and ensure efficient provision of urban services. The SOI change and annexation will require final approval by LAFCo if the City Council endorses an application to LAFCo.

It should be noted that annexation of these properties requires landowner consent as part of the application to LAFCo. This includes consent from Zone 7, PG&E, and Caltrans for annexation of the Additional Annexation Only Parcels. At the time of writing this report, landowner consent has been provided by Zone 7 only. Staff is continuing to pursue landowner consent from PG&E and Caltrans. Staff recommends the Additional Annexation Only Parcels remain part of the project since altogether, these parcels create a logical city boundary. If the landowner consent from these two agencies is not provided by the time of LAFCo application submittal, LAFCo staff will prepare a notice to these agencies regarding annexation and their right to protest the annexation in advance of the LAFCo public hearing.

Upon the SOI amendment and annexation, the City municipal boundary would change to include the entire Project site including SMP 39, SMP 40, and the Additional Annexation Only Parcels. The Project's subdivision and development entitlements will be secured through a Development Agreement until the SOI amendment is complete for SMP 39 and SMP 39, SMP 40, and the Additional Annexation Only Parcels are annexed into the City.

Prezoning is required before annexing a property to ensure the property's zoning classification is consistent with the City's General Plan (Government Code Section 56375). Prezoning designations then become formal zoning designations upon annexation into the City. The Project proposes to rezone SMP 39 and SMP 40 to PD-I 22-001. The proposed use, building form, lot size, layout, and overall character is compatible with the surrounding industrial uses. The proposed PD-I 22-001 zoning for the SMP 39 and SMP 40 properties will provide consistency and compatibility with the surrounding development.

In addition, the Additional Annexation Only Parcels will be annexed into the city, and also require a prezoning designation upon annexation. The proposed Open Space – Floodplain (OS-F) zoning for the Additional Annexation Only Parcels is consistent with the parcel's natural features and attributes, including their proximity to Arroyo Mocho.

Vesting Tentative Subdivision Maps

The Project entitlements include a Vesting Tentative Tract Map for SMP 39 and a Vesting Tentative Parcel Map for SMP 40 in conformance with Part 10 of the Livermore Development Code (and Government Code and the Subdivision Map Act, by reference).

The Vesting Tentative Tract Map for SMP 39 would subdivide the single existing parcel into six lots, ranging in size from approximately 5.75 acres to approximately 11.76 acres (Attachment 8). These six lots would facilitate development of light industrial buildings ranging in size from 89,400 sf to 183,600 sf. Access to these new lots would be via three new 40-foot-wide driveways from West Jack London Boulevard to the north.

The Vesting Tentative Parcel Map for SMP 40 would subdivide the single existing parcel into two parcels, creating an approximately 24.1-acre western lot and an approximately 16.5-acre eastern lot (Attachment 9). These two lots would facilitate development of light industrial buildings. The western parcel, referred to as Building 1, will have an approximately 470,530-sf building and the eastern parcel, referred to as Building 2, will have an approximately 288,750-sf building. Access to SMP 40 would be provided through new internal roadway connections to Atlantis Street and Challenger Street to the north, which currently serve the existing Oaks Business Park.

Site Plan Design Review

The Site Plan Design Review (SPDR) 21-008 entitlement is to review SMP 40's site layout, landscape design, and building architecture and evaluate consistency with the City's Design Standards and Guidelines.

A SPDR entitlement will be required later for the future development of SMP 39 and will be subject to Planning Commission review and approval. There is a conceptual site plan for SMP 39 in the attached development plans (Attachment 8) to show what could be built, but that will not be analyzed below since an SPDR is not being approved at this time. The conceptual SMP 39 site plan does show the potential square footage that was necessary for the Draft EIR to analyze potential traffic, noise, and other environmental impacts.

Parking

A total of 633 vehicle parking stalls would be provided at the SMP 40 site, which exceeds the parking requirement. The 633 parking stalls would be located throughout the site, including along the northern and southern sides of Building 1, and northeast of Building 2. The 164 truck/trailer parking stalls would be located opposite the internal drive aisles from each loading dock area. The loading docks are located on the east and west side of Building 1 and the north and south side on Building 2. All parking will be screened with landscaping consistent with the Livermore Development Code and Industrial Design Standards and Guidelines. In addition, the project would provide 41 bicycle parking spaces, which exceeds the requirement of 30 spaces. The bicycle parking is located near the entrances on all sides of the buildings, including the main office entrances to Building 1 and Building 2.

Landscape Design

The site plan for SMP 40 includes landscape design to support and complement the building architecture and the surrounding industrial area. The proposed planting plan for SMP 40 includes a variety of trees, shrubs, and groundcovers that are distributed throughout the site and around the proposed buildings. Tree species include a mixture of evergreen and deciduous trees including Italian Cypress, Sycamore, Chinese Pistache, Swan Hill Olive, Brisbane Box, Crape Myrtle, Holly Live Oak, and Fruitless Olive. All the proposed planting would be low water usage consistent with the Water Efficient Landscape Ordinance, Livermore Municipal Code 13.25.

The project provides screening for the SMP 40 loading docks with trees and a wall as viewed from Isabel Avenue/SR 84 and trees that will screen loading docks from Stanley Boulevard to the south. This is consistent with the screening provisions for service areas per the Livermore Design Standard and Guidelines.

Development Code Table 4.12, Required Interior Parking Lot Landscaping describes the minimum parking lot landscaping required based on the number of parking spaces. SMP 40 meets this standard by providing at or above 16 percent of the parking area in landscaped area. Development Code Table 4.13, Required Shade Trees, requires 16 trees per gross site area acre, minus building coverage. The western parcel includes 108 trees on the parcel, which does not meet the minimum requirement of 212 trees. Therefore, a condition is included in the conditions of approval for the Project (Attachment 21) to meet this requirement. The eastern parcel includes 176 trees, which exceeds the minimum requirement of 165 trees. The Livermore Development Code requires that 20 percent of the trees be planted at 24-inch box size. The western parcel includes 22 24-inch box trees, meeting this requirement, while the eastern parcel incudes 137 24-inch box trees, exceeding this requirement.

Therefore, the landscape design for SMP 40 is also consistent with the Industrial Design Standards and Guidelines including providing a hierarchy of plantings and minimum planting size requirements.

Public Art

The applicant has requested to pay the public art fee in compliance with Livermore Municipal Code Chapter 12.50. The public art fee will be paid prior to Building Permit issuance.

Architecture

Architecture for the two buildings on SMP 40 is primarily concrete tilt-up panels with smooth finishes, with aluminum storefront framing and tempered glass at building entrances and office areas. The buildings would be up to approximately 47 feet in height. Vertical parapets extend periodically above the primary roof line, as do a series of horizontal and vertical score lines. Together, these details break up the building wall planes. The roof parapets are designed to screen future roof-mounted equipment from public view. The building's roofline and wall plane design are also consistent with the Livermore Design Standards and Guidelines for Building Design, which require changes in wall planes or varying height and changes in building materials and colors.

Building colors proposed for the SMP 40 building are primarily off-white with contrasting gray along the horizontal bands and the vertical wall sections encompassing the parapets are a darker blue. Proposed window glazing is blue. These design details are consistent with the surrounding buildings at the Oaks Business Park.

Development Agreement

A Development Agreement functions as a Pre-Annexation Agreement and is necessary to secure the applicant's requested entitlements, until such time as LAFCo approves the annexation of SMP 39, SMP 40, and the Additional Annexation Only Parcels. In addition, off-site improvements are secured through the proposed Development Agreement between the property owner, Developer, and the City. The Development Agreements for SMP 39 and SMP 40 establishes terms, timing, and a performance schedule for offsite improvements and other public benefits (Attachments 8 and 9).

The Development Agreement would require the developer to pay $50,000 a year for a two-year period to

the City's Innovation and Economic Development Department towards marketing SMP 39 for the desired land uses identified in PD-I 22-001. Such uses include research and development facilities, professional and administrative offices, experimental and testing laboratories, and manufacturing uses that support an innovation-driven economy, generate high wage jobs, or generate substantial sales tax revenues.

In addition, the Development Agreement requires the Developer to design, construct, secure permits and contribute to an off-site grade-separated overcrossing (bridge) of Isabel Avenue/State Route 84 north of the existing railroad tracks and Stanley Boulevard as a required public benefit ("the Trail Overcrossing"). This off-site trail improvement includes trail connections from the terminus of the bridge to the existing off-site Arroyo Mocho trail east of Isabel Avenue and to the future on-site trail along the SMP 40 property frontage to the west of Isabel Avenue ("the Trail Connections").

The anticipated bridge span will be approximately 190-210 feet, running parallel with the existing railroad tracks to the south. The materials may consist of a fabricated truss and a weathered steel span bridge with concrete flooring. The final design may include lighting, cameras, and/or other safety and security measures as required by the City's Chief of Police and City Engineer.

It should be noted that beyond the details presented in this report, the final Trail Overcrossing and Trail Connection design is not intended for future review and approval by the Planning Commission.

The total cost for the Trail Overcrossing and Trail Connections is approximately $2.5 million. As a requirement of the Development Agreement, the Developer is required to contribute $750,000 towards the off-site trail improvements. The City and Developer will diligently pursue grant funding opportunities to fund the remaining Trail Overcrossing and Trail Connections, less the Developer Obligation. In the event that a grant funding opportunity is not successful, the City will credit the Developer using Traffic Impact Fees, less the $750,000 Developer's contribution. Once completed, the trail segment would connect the existing Arroyo Bike Trail to the existing trail on the west side of the Oaks Business Park and further west to the San Francisco Premium Outlets.

CEQA - Draft Environmental Impact Report

An Environmental Impact Report (EIR) has been prepared for the project in accordance with the California Environmental Quality Act (CEQA) (available online at http://www.cityoflivermore.net/citygov/cdd/planning/environ.htm).

The City of Livermore contracted with Raney Planning and Management (Consultant) to prepare an Environmental Impact Report (EIR) for the Project. A Notice of Preparation (NOP) to prepare an EIR for the Project in accordance with the California Environmental Quality Act (CEQA) was prepared and released for a 30-day public review period from January 6, 2023, through February 6, 2023. On January 17, 2023, the Planning Commission held a public hearing to receive public comments on the NOP. Four comment letters were received during the review period and two public comments were made at the public comment hearing. Public comments received during the NOP review period have been included as part of Appendix A of the Draft EIR in accordance with CEQA.

A Draft EIR was subsequently prepared to the analyze the Project's impacts to the environment. The Draft EIR identified the project's potential environmental impacts and the mitigation measures that would be required to be implemented. The following items were identified as being potentially significant:

- Agricultural Resources;
- Air Quality, Greenhouse Gas Emissions, and Energy;
- Biological Resources;
- Cultural and Tribal Cultural Resources;
- Hydrology and Water Quality;
- Noise;
- Public Services and Utilities; and
- Transportation

The Draft EIR concluded all impacts to be less than significant with mitigation, except for one impact related to Agricultural Resources which was determined to be significant and unavoidable. This impact is related to converting farmland to non-agricultural use. While the California Department of Conservation's Farmland Mapping and Monitoring Program does not classify the project properties as Farmland, LAFCo's criteria for Farmland classification differs from the State's criteria. Based on LAFCo's criteria, SMP 39 and SMP 40 have on-site soils that meet the criteria to be classified as Prime Farmland by LAFCo. Therefore, it was determined that the project would have a significant and unavoidable impact related to the conversion of farmland to non-agricultural use.

The Draft EIR was released for a 45-day public review period from August 30, 2023, through October 13, 2023. On October 3, 2023, the Planning Commission held a public hearing to receive public comments on the Draft EIR. Six comment letters were received during the Draft EIR public review period and three public comments were made at the public comment hearing. Public comments received during the Draft EIR review period have been included as part of the Final EIR in accordance with CEQA.

On January 16, 2024, a Final EIR for the Project was released including responses to all comments received during the Draft EIR public review period and associated revisions to the Draft EIR. The Final EIR also includes a Mitigation Monitoring and Reporting Program to ensure implementation of the mitigation measures identified within the EIR and Initial Study for the Project (Attachment 11). The City received seven comment letters related to the environmental analysis following the release of the Final EIR. Public comments received after the release of the Final EIR and associated responses to the comment letters are included in the Response to Comments Memorandum (Attachment 17).

LIVERMORE
CALIFORNIA

PLANNING COMMISSION STAFF REPORT **ITEM NO. 5.1**

DATE: March 5, 2024

TO: Chairperson and Members of the Planning Commission

FROM: Steve Riley, Acting Planning Manager

SUBJECT: Hearing to consider a request for an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Development Code Amendment, Vesting Tentative Parcel Map, Vesting Tentative Tract Map, Planned Development, and Site Plan Design Review for the SMP 39 and 40 Project to zone for and develop light industrial uses near the northwest part of the City.

RECOMMENDED ACTION

Staff recommends the Planning Commission recommend the City Council take the following actions to authorize the future development of light industrial buildings on the SMP 39 and SMP 40 properties:

1. Adopt a resolution certifying the Final Environmental Impact Report pursuant to the California Environmental Quality Act (CEQA); and
2. Adopt a resolution approving Annexation/Prezoning (APZ) 21-003, Pre-Annexation and Development Agreement (DA) 21-001, Pre-Annexation and Development Agreement (DA) 23-002, General Plan Amendment (GPA) 21-001, Zoning Map Amendment (ZMA) 21-002, Development Code Amendment (DCA) 21-005, Planned Development-Industrial (PD-I) 22-001, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008.

The Planning Commission's action is a recommendation to the City Council.

SUMMARY

In September 2021, Overton Moore Properties applied to the City of Livermore for several land use entitlements for the properties known as SMP 39 and SMP 40 (Project). The Project includes annexation and development of SMP 39 (Assessor Parcel Number [APN] 904-3-1-4) and SMP 40 (APN 904-10-2-2) with approximately 1.51 million square feet of light industrial uses. In addition, the Project includes annexation of four additional parcels (APNs 904-10-2-3, -5, -7, and -8) located east of SMP 40 (Additional Annexation Only Parcels). Development is not proposed on the Additional Annexation Only Parcels and they are proposed to remain as open space.

SMP 39 is vacant grassland and approximately 52 acres, located west of the Oaks Business Park and south of West Jack London Boulevard and the Livermore Municipal Airport. SMP 40 is also vacant grassland and approximately 41 acres, located south of the Oaks Business Park and west of Isabel Avenue/State Route (SR) 84. The Additional Annexation Only Parcels are also vacant grassland (except for Zone 7 flood control facilities and PG&E infrastructure) and consist of four parcels ranging from 0.2 acre to 5.76 acres, located immediately east of SMP 40. See Attachment 1, Approximate Project Site Boundaries Map for the Project location.

The Project includes off-site roadway, bicycle lane, and other public improvements along West Jack London Boulevard adjacent to SMP 39 and on- and off-site trail improvements adjacent to and east of SMP 40. The proposed Planned Development zoning for both SMP 39 and SMP 40 will allow some typical light industrial uses such as warehouse and distribution (although limited to a maximum of 20% of floor space in SMP 39) but other even more economically desirable and higher job generating uses such as research and development facilities, professional and administrative offices, experimental and testing laboratories, and manufacturing uses.

The Project requires several land use entitlements including an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Planned Development, Development Code Amendment, Vesting Tentative Subdivision Maps, and Site Plan Design Review for SMP 40. A Site Plan Design Review entitlement is required for the actual development of SMP 39 and SMP 40 but is only currently proposed for SMP 40 at this time. A Site Plan Design Review entitlement will be required at a later date for the future development of SMP 39 and will be subject to Planning Commission review and approval.

According to the applicant, they plan to construct the two SMP 40 buildings in the very near future, and there is an unnamed tenant to occupy at least one of the two buildings.

The Planning Commission's action is a recommendation to the City Council.

DISCUSSION

BACKGROUND

On September 22, 2021, Overton Moore Properties (Applicant) applied to the City of Livermore for several land use entitlements to bring SMP 39 into the City's Sphere of Influence (SOI), annex SMP 39 and SMP 40, and develop SMP 39 and SMP 40 with approximately 1.51 million square feet (sf) of light industrial land uses. At the request of City staff, the original Project proposal included bringing SMP 38 into the City of Livermore's SOI and annexing four additional parcels (Additional Annexation Only Parcels) west of SMP 40. City staff requested including SMP 38 and the Additional Annexation Only Parcels to create logical city boundaries that align with the City's Urban Growth Boundary (UGB). Collectively, these elements constituted the SMP 39/SMP 40 Project (Project). Refer to Attachment 1 for the Approximate Project Site Boundaries Map.

The SMP numbers are Surface Mining Permit (SMP) numbers applicable to each site. The Surface Mining Permits for each of the sites were approved in 2004 by Alameda County to allow for the extraction of sand and gravel (i.e., aggregate) within the sites; however, aggregate mining has not occurred within any of the sites, and they are currently vacant grassland. Staff is recommending the actual SMP County rights be forfeited by the applicant through the Development Agreement and

conditions of approval, to guarantee mining does not occur on these in the future.

The Project originally included an SOI amendment to move SMP 38 from the City of Pleasanton's SOI to the City of Livermore's SOI. Approval of the SOI amendment would not have altered the existing land use or zoning designation of SMP 38. Annexation of SMP 38 into the City of Livermore was not proposed as part of the Project, nor was development of SMP 38. However, during the entitlement review process, the City of Pleasanton expressed concerns related to potential impacts to their city from the future SMP 38 development. Following discussion with the City of Pleasanton, the City of Livermore staff decided to remove SMP 38 from the Project. SMP 38 is not shown on the project maps since it is no longer part of the project, but it is located directly west of SMP 39 along West Jack London Boulevard.

The City of Pleasanton has agreed to participate in a future discussion related to the SOI amendment for SMP 38 when a development proposal is brought forth for the property. Furthermore, City of Pleasanton staff is bringing a resolution of support to move SMP 39 into Livermore's SOI at their March 5, 2024 City Council meeting.

On November 8, 2021, the City Council authorized staff to proceed with concurrent review of the requested Project entitlements and negotiating terms for a Pre-Annexation/Development Agreement with the Applicant. On March 28, 2022, the City entered into a Professional Services Agreement with Rincon Consultants, Incorporated to provide planning assistance on the entitlement and environmental review.

The Project was reviewed by the City Airport Commission and Alameda County Airport Land Use Commission (ALUC) on October 2, 2023 and October 9, 2023, respectively and determined the project to be compatible with the Livermore Airport Land Use Compatibility Plan (ALUCP), with the condition that avigation easements be required for each of the Project properties.

PROJECT DESCRIPTION

The Project covers approximately +/-105 acres near the northwest portion of the City in unincorporated Alameda County. SMP 39, SMP 40, and the Additional Annexation Only Parcels are within the City of Livermore South Livermore UGB; however, SMP 39 is within the City of Pleasanton's SOI. Accordingly, an SOI amendment for SMP 39 is proposed in order to modify the SOI (Attachment 2).

SMP 39 is vacant grassland and approximately 52 acres, located west of the Oaks Business Park and south of West Jack London Boulevard and the Livermore Municipal Airport. SMP 40 is also vacant grassland and approximately 41 acres, located south of the Oaks Business Park and west of Isabel Avenue/State Route (SR) 84. The Additional Annexation Only Parcels are also vacant grassland (except for Zone 7 flood control facilities and PG&E infrastructure) and consist of four parcels ranging from 0.2 acre to 5.76 acres, located immediately east of SMP 40. These four parcels are separately owned by four different agencies including the City of Livermore, Zone 7 Water Agency, PG&E, and Caltrans.

In addition to the SOI amendment for SMP 39, the Project includes annexation of SMP 39 into the City of Livermore. The Project also includes annexation of SMP 40 and the Additional Annexation Only Parcels, which are currently within the City of Livermore's SOI, into the City of Livermore (Attachment 3). The Project includes development of SMP 39 and SMP 40 with approximately 1.51 million sf of light industrial uses. Development is not proposed on the Additional Annexation Only Parcels.

The proposed PD zoning for both SMP 39 and 40 will allow some typical light industrial uses such as

warehouse and distribution (although limited to a maximum of 20% of floor space in SMP 39) but other even more economically desirable and higher job generating uses such as research and development facilities, professional and administrative offices, experimental and testing laboratories, and manufacturing uses (Attachment 18). In addition, SMP 40 will be subdivided into two parcels to accommodate two industrial tilt-up buildings: one totaling 470,530 sf and the other 288,750 sf. SMP 39 is only being subdivided at this time into six parcels for future light industrial buildings projected to range in size from approximately 89,400 to 183,600 sf of building floor area.

The Project includes construction of all necessary public improvements including street and utility connections and pedestrian, bicycle, and landscaping improvements. Specifically, for SMP 39, the Project includes right-of-way dedication for the ultimate build out of West Jack London Boulevard, as described in the City's General Plan. Ultimate buildout of the roadway is anticipated to consist of four through lanes, including two 12-foot through lanes on each side, a 16-foot raised and landscaped buffer in the center of the roadway, as well as a eight-foot bicycle lane on each side of the roadway, separated from the through lanes by a two-foot buffer. The applicant will be required to build part of these improvements along their frontage on the south side of West Jack London Boulevard, including the median, when the applicant develops the SMP 39 site.

The Project also includes re-construction of an at-grade, paved multi-use trail within a 38.5-foot trail easement along the SMP 39 frontage on the south side of West Jack London Boulevard, consistent with the City's Active Transportation Plan (ATP). This would provide a connection to the existing trail along the western boundary of the Oaks Business Park and eventually to the Arroyo Mocho Trail on the east side of Isabel Avenue/SR 84.

The Project includes a paved at-grade, on-site trail along the boundaries of the SMP 40 property, consistent with the ATP. Specifically, the on-site trail would extend from the northeastern corner of the SMP 40 property, along the property's eastern, southern, and western boundaries, before connecting to an existing off-site paved at-grade trail north of the SMP 40 property, which extends along the west side of the Oaks Business Park to the north and connects to the trail on West Jack London Boulevard. These on-site trail alignments for SMP 39 and 40 are shown in Attachments 4 and 5, respectively.

In addition, the Project includes a new off-site trail connection from the Project site to the existing Arroyo Mocho Trail consistent with the ATP, located on the east side of Isabel Avenue/ SR 84. Three options for the off-site trail connection were considered and evaluated in the EIR, including the following, and shown in Attachment 6:

- Trail Connection Option 1 – At-Grade Crossing at Discovery Drive;
- Trail Connection Option 2 – Undercrossing at Isabel Bridge; and
- Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84.

Following evaluation of each of the trail connection options, including pedestrian and bicyclist safety, ease of use, and storm maintenance-related considerations, staff is recommending Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84.

If the City Council approves Trail Connection Option 3, the applicant will prepare design and construction documents and submit necessary permits in coordination with the City, Caltrans, and other responsible agencies. The applicant will also pay a portion of bridge costs and construct the bridge as explained below in the Development Agreement section.

The Project includes the following entitlements:

- General Plan Amendment (GPA) 21-001 to designate SMP 39 and SMP 40 as Low Intensity Industrial (LII) and the Additional Annexation Only Parcels as Parks, Trailways, and Recreation Areas (OSP), consistent with their respective adjacent land uses.
- Annexation/Prezoning (APZ) 21-003 to prezone SMP 39 and SMP 40 to Planned Development – Industrial (PD-I) 22-001 to allow for a mixture of industrial and related uses and prezoning the Additional Annexation Only Parcels to Open Space-Floodplain (OS-F). In addition, the entitlement would authorize an application to the Alameda County Local Agency Formation Commission (LAFCo) for a SOI change and annexation into the City of Livermore.
- Zoning Map Amendment (ZMA) 21-002, Planned Development Zoning (PD-I) 22-001, and Development Code Amendment (DCA) 21-005 to rezone SMP 39, SMP 40, and the Additional Annexation Only Parcels. SMP 39, SMP 40, and the Additional Annexation Only Parcels are currently zoned Agricultural (A) in Alameda County with an overlay permitting quarry operations. These entitlements would rezone SMP 39 and SMP 40 to PD-I 22-001 that will allow a mixture of Industrial and related uses and the Additional Annexation Only Parcels to OS-F for continued open space protection near the Arroyo Mocho.
- Subdivision (SUB) 21-008 and (SUB) 21-009 to approve a Vesting Tentative Tract Map for SMP 39 (Attachment 4) and a Vesting Tentative Parcel Map for SMP 40 (Attachment 5). SMP 39 will be subdivided into six lots, ranging in size from approximately 5.75 acres to 11.76 acres along with associated improvements. SMP 40 will be subdivided into two lots, approximately 24.1 acres and 16.5 acres, respectively, along with associated improvements.
- Site Plan Design Review (SPDR) 21-008 to ensure the architecture and landscape design of the project complies with City standards. This entitlement is for SMP 40 only. A Site Plan Design Review entitlement will be required at a later date for the future development of SMP 39 and will be subject to review and approval by Planning Commission.
- Development Agreement (DA) 21-001 and DA 23-002 to secure the Applicant's entitlements until the Project properties are annexed into the City. Further, the DAs establish terms and obligations for public benefits, including the Applicant’s financial contribution toward and construction of the off-site trail improvements and financial contribution to the City’s Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001.

PROJECT SITE CONTEXT

Tables 1 and 2 (Attachment 7) summarize the General Plan land use designation, zoning classification, and existing land use on the SMP 39, SMP 40, and Additional Annexation Only Parcels properties and surrounding properties.

STAFF ANALYSIS

General Plan

The Livermore General Plan currently designates SMP 39, SMP 40, and the Additional Annexation Only Parcels as Open Space/Sand and Gravel (OSP/S&G). The OSP/S&G designation is applied to areas of Statewide concern due to their demonstrated level of quality aggregate. This designation primarily allows for open space, with sand and gravel extraction, processing and related activities as a secondary use.

The Project proposes to amend the existing OSP/S&G designation to Low Intensity Industrial (LII) for the SMP 39 and SMP 40 properties to allow for light industrial development. In addition, the Project proposes to change the existing OSP/S&G designation for the Additional Annexation Only Parcels to Parks, Trailways, and Recreation Areas (OSP). Development is not proposed on the Additional Annexation Only Parcels.

The LII designation includes manufacturing, warehousing, research and development facilities, fully-enclosed recycling facilities, and administrative and professional offices. Low-intensity industrial uses are focused around the Livermore Municipal Airport. The OSP designation is applied to areas to be maintained as permanent or semi permanent open space because they have valuable natural or scenic resources, or because they are unsuitable for development due to environmental hazards. This designation includes parks and trails, creeks and arroyos, and areas of scenic value.

The proposed General Plan Amendment to change the land use designation for SMP 39 and SMP 40 from OSP/S&G to LII would is consistent with the following General Plan policies:

- Objective LU-1.1 Locate new development so as to create a consolidated pattern of urbanization, maximizing the use of existing public services and facilities.
    - Response: The project supports light industrial development in proximity to existing light industrial development and includes the use of existing public streets, services, and facilities.
- Policy LU-1.1.P1. The City shall annex all lands currently under County jurisdiction and within the UGB prior to development in areas designated for urban uses.
    - Response: The project includes the annexation of land currently under Alameda County jurisdiction and within the South Livermore UGB.
- Objective LU-4.2 Ensure that new development complements its local context and minimizes impacts on the environment
    - Response: The light industrial development is compatible with and complements the existing light industrial context, including the Livermore Municipal Airport and the Oaks Business Park. The Project will minimize impacts on the environment by locating development adjacent to these existing industrial uses, limiting residents and other sensitive receptors to impacts such as noise.
- Objective LU-4.3 Designate appropriate areas for industrial uses in order to prevent negative impacts on the health, safety, and welfare of residents.
    - Response: The project proposes industrial development similar to the industrial uses located at the existing Oaks Business Park. SMP 39 is located approximately 2,745 feet from the nearest single-family residences and SMP 40 is located approximately 884 feet from the nearest single-family residences, with State Hwy. 84 located in between. Therefore, these properties are appropriately designated as light industrial use.
- Policy LU-4.3.P1. Industrial development shall be subject to design principles and consistent with General Plan policies.
    - Response: The project's site plan and architectural design is consistent with the Livermore Design Standards and Guidelines.
- Objective LU-4.4 Protect the Municipal Airport from encroachment by incompatible uses.
    - Response: SMP 39 and SMP 40 include light industrial development, which is a compatible land use regarding noise, height/flight clearance, public safety, etc. per the Alameda County Airport Land Use Compatibility Plan (ALUCP), which was confirmed by the Alameda County Airport Land Use Commission on October 9, 2023. In addition, the Livermore Airport

Commission on October 2, 2023, found the Project compatible with the Livermore Airport Protection Area and the ALUCP with the condition that avigation easements be required for each of the Project properties. This condition is included in the conditions of approval for the Project (Attachment 21).

- Policy LU-4.4.P1. The City shall encourage development of property within the immediate vicinity of the Airport for light industrial and transportation uses to the extent that noise standards and flight clearance requirements are maintained, and environmental impacts are adequately mitigated.
    - Response: See response above.
- Objective CIR-2.3 Provide a bicycle, pedestrian, and trails network.
    - Response: The project supports this objective by adding to the bicycle, pedestrian and trails network along West Jack London Boulevard, along the SMP 40 property, and an off-site trail connection over Isabel Avenue/SR 84 creating a connection to the Arroyo Bike Trail.
- Objective ED-1.1 Implement policies and actions that will encourage existing businesses to remain and grow in Livermore, and attract a range of new businesses to locate in Livermore.
    - Response: The Project provides new opportunities for job creation by allowing existing businesses to grow in Livermore and attracting new businesses to locate in Livermore, including desired uses in SMP 39 and SMP 40 such as research and development facilities, professional and administrative offices, experimental and testing laboratories, and manufacturing uses. Furthermore, the proposed Development Agreements require the Applicant to provide a financial contribution to the City's Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001.

Annexation/Prezoning

SMP 39, SMP 40, and the Additional Annexation Only Parcels are within the City of Livermore South Livermore UGB; however, SMP 39 is within the City of Pleasanton's SOI. Accordingly, an SOI Amendment SMP 39 is proposed in order to move SMP 39 into the City of Livermore's SOI.

SOI areas are used to plan for the probable physical boundaries and service area of a local agency. Annexation is the process by which unincorporated land is made a part of (incorporated into) the City of Livermore. The Alameda County LAFCo is the local agency that oversees boundary changes, including SOI amendments and annexations, to cities and special districts. Generally, LAFCo's purpose is to ensure the orderly formation of local government agencies to preserve agricultural and open space lands, discourage urban sprawl, and ensure efficient provision of urban services. The SOI change and annexation will require final approval by LAFCo if the City Council endorses an application to LAFCo.

It should be noted that annexation of these properties requires landowner consent as part of the application to LAFCo. This includes consent from Zone 7, PG&E, and Caltrans for annexation of the Additional Annexation Only Parcels. At the time of writing this report, landowner consent has been provided by Zone 7 only. Staff is continuing to purse landowner consent from PG&E and Caltrans. Staff recommends the Additional Annexation Only Parcels remain part of the project since altogether, these parcels create a logical city boundary. If the landowner consent from these two agencies is not provided by the time of LAFCo application submittal, LAFCo staff will prepare a notice to these agencies regarding annexation and their right to protest the annexation in advance of the LAFCo public hearing.

Upon the SOI amendment and annexation, the City municipal boundary would change to include entire Project site including SMP 39, SMP 40, and the Additional Annexation Only Parcels. The Project's

subdivision and development entitlements will be secured through a Development Agreement until the SOI amendment is complete for SMP 39 and SMP 39, SMP 40, and the Additional Annexation Only Parcels are annexed into the City.

Prezoning is required before annexing a property to ensure the property's zoning classification is consistent with the City's General Plan (Government Code Section 56375). Prezoning designations then become formal zoning designations upon annexation into the City. The Project proposes to rezone SMP 39 and SMP 40 to PD-I 22-001. The proposed use, building form, lot size, layout, and overall character is compatible with the surrounding industrial uses. The proposed PD-I 22-001 zoning for the SMP 39 and SMP 40 properties will provide consistency and compatibility with the surrounding development.

In addition, the Additional Annexation Only Parcels will be annexed into the city, and also require a prezoning designation upon annexation. The proposed OS-F zoning for the Additional Annexation Only Parcels is consistent with the parcel's natural features and attributes, including their proximity to Arroyo Mocho.

Vesting Tentative Subdivision Maps

The Project entitlements include a Vesting Tentative Tract Map for SMP 39 and a Vesting Tentative Parcel Map for SMP 40 in conformance with Part 10 of the Livermore Development Code (and Government Code and the Subdivision Map Act, by reference).

The Vesting Tentative Tract Map for SMP 39 would subdivide the single existing parcel into six lots, ranging in size from approximately 5.75 acres to approximately 11.76 acres (Attachment 4). These six lots would facilitate development of light industrial buildings ranging in size from 89,400 sf to 183,600 sf. Access to these new lots would be via three new 40-foot-wide driveways from West Jack London Boulevard to the north.

The Vesting Tentative Parcel Map for SMP 40 would subdivide the single existing parcel into two parcels, creating an approximately 24.1-acre western lot and an approximately 16.5-acre eastern lot (Attachment 5). These two lots would facilitate development of light industrial buildings. The western parcel, referred to as Building 1, will have an approximately 470,530-sf building and the eastern parcel, referred to as Building 2, will have an approximately 288,750-sf building. Access to SMP 40 would be provided through new internal roadway connections to Atlantis Street and Challenger Street to the north, which currently serve the existing Oaks Business Park.

Site Plan Design Review

The Site Plan Design Review (SPDR) 21-008 entitlement is to review SMP 40's site layout, landscape design, and building architecture and evaluate consistency with the City's Design Standards and Guidelines.

A SPDR entitlement will be required at a later date for the future development of SMP 39 and will be subject to Planning Commission review and approval. There is a conceptual site plan for SMP 39 in the attached development plans to show what could be built, but that will not be analyzed below since an SPDR is not being approved at this time. The conceptual SMP 39 site plan does show the potential square footage that was necessary for the Draft EIR to analyze potential traffic, noise, and other environmental impacts.

Parking

A total of 633 vehicle parking stalls would be provided at the SMP 40 site, which exceeds the parking requirement. The 633 parking stalls would be located throughout the site, including along the northern and southern sides of Building 1, and northeast of Building 2. The 164 truck/trailer parking stalls would be located opposite the internal drive aisles from each loading dock area. The loading docks are located on the east and west side of Building 1 and the north and south side on Building 2. All parking will be screened with landscaping consistent with the Livermore Development Code and Industrial Design Standards and Guidelines. In addition, the project would provide 41 bicycle parking spaces, which exceeds the requirement of 30 spaces. The bicycle parking is located near the main entrances on the northeastern side of Building 1 and the northwestern side of Building 2.

Landscape Design

The site plan for SMP 40 includes landscape design to support and complement the building architecture and the surrounding industrial area. The proposed planting plan for SMP 40 includes a variety of trees, shrubs, and groundcovers that are distributed throughout the site and around the proposed buildings. Tree species include a mixture of evergreen and deciduous trees including Italian Cypress, Sycamore, Chinese Pistache, Swan Hill Olive, Brisbane Box, Crape Myrtle, Holly Live Oak, and Fruitless Olive. All the proposed planting would be low water usage consistent with the Water Efficient Landscape Ordinance, Livermore Municipal Code 13.25.

The project provides screening for the SMP 40 loading docks with trees and a wall as viewed from Isabel Avenue/SR 84 and trees that will screen loading docks from Stanley Boulevard to the south. This is consistent with the screening provisions for service areas per the Livermore Design Standard and Guidelines.

Development Code Table 4.12, Required Interior Parking Lot Landscaping describes the minimum parking lot landscaping required based on the number of parking spaces. SMP 40 meets this standard by providing at or above 16 percent of the parking area in landscaped area. Development Code Table 4.13, Required Shade Trees, requires 16 trees per gross site area acre, minus building coverage. The western parcel includes 284 trees on the parcel, which exceeds the minimum requirement of 212 trees. The eastern parcel includes 176 trees, which exceeds the minimum requirement of 165 trees. The Livermore Development Code requires that 20 percent of the trees be planted at 24-inch box size. The western parcel includes 108 24-inch box trees, exceeding this requirement, while the eastern parcel incudes 137 24-inch box trees, also exceeding this requirement.

Therefore, the landscape design for SMP 40 is also consistent with the Industrial Design Standards and Guidelines including providing a hierarchy of plantings and minimum planting size requirements.

Public Art

The applicant has requested to pay the public art fee in compliance with Livermore Municipal Code Chapter 12.50. The public art fee will be paid prior to Building Permit issuance.

Architecture

Architecture for the two buildings on SMP 40 is primarily concrete tilt-up panels with smooth finishes, with aluminum storefront framing and tempered glass at building entrances and office areas. The buildings would be up to approximately 47 feet in height. Vertical parapets extend periodically above the primary roof line, as do a series of horizontal and vertical score lines. Together, these details break up the building wall planes. The roof parapets are designed to screen future roof-mounted equipment from

public view. The building's roofline and wall plane design is also consistent with the Livermore Design Standards and Guidelines for Building Design, which require changes in wall planes or varying height and changes in building materials and colors.

Building colors proposed for the SMP 40 building are primarily off-white with contrasting gray along the horizontal bands and the vertical wall sections encompassing the parapets are a darker blue. Proposed window glazing is blue. These design details are consistent with the surrounding buildings at the Oaks Business Park.

Development Agreement

A Development Agreement functions as a Pre-Annexation Agreement and is necessary to secure the applicant's requested entitlements, until such time as LAFCo approves the annexation of SMP 39, SMP 40, and the Additional Annexation Only Parcels. In addition, off-site improvements are secured through the proposed Development Agreement between the property owner, Developer, and the City. The Development Agreements for SMP 39 and SMP 40 establishes terms, timing, and a performance schedule for offsite improvements and other public benefits (Attachments 19 and 20).

The Development Agreement would require the developer to pay $50,000 a year for a two-year period to the City's Innovation and Economic Development Department towards marketing SMP 39 for the desired land uses identified in PD-I 22-001. Such uses include research and development facilities, professional and administrative offices, experimental and testing laboratories, and manufacturing uses that support an innovation-driven economy, generate high wage jobs, or generate substantial sales tax revenues.

In addition, the Development Agreement requires the Developer to design, construct, secure permits and contribute to an off-site grade-separated overcrossing (bridge) of Isabel Avenue/State Route 84 north of the existing railroad tracks and Stanley Boulevard as a required public benefit (“the Trail Overcrossing”). This off-site trail improvement includes trail connections from the terminus of the bridge to the existing off-site Arroyo Mocho trail east of Isabel Avenue and to the future on-site trail along the SMP 40 property frontage to the west of Isabel Avenue (“the Trail Connections”).

The anticipated bridge span will be approximately 190-210 feet, running parallel with the existing railroad tracks to the south. The materials will consist of a fabricated truss and a weathered steel span bridge with concrete flooring. The final design may include lighting, cameras, and/or other safety and security measures as required by the City’s Chief of Police and City Engineer.

It should be noted that beyond the details presented in this report, the final Trail Overcrossing and Trail Connection design is not intended for future review and approval by the Planning Commission.

The total cost for the Trail Overcrossing and Trail Connections is approximately $2.5 million. As a requirement of the Development Agreement, the Developer is required to contribute $750,000 towards the off-site trail improvements. The City and Developer will diligently pursue grant funding opportunities to fund the remaining Trail Overcrossing and Trail Connections, less the Developer Obligation. In the event that a grant funding opportunity is not successful, the City will credit the Developer using Traffic Impact Fee, less the $750,000 Developer’s contribution. Once completed, the trail segment would connect the existing Arroyo Bike Trail to the existing trail on the west side of the Oaks Business Park and further west to the San Francisco Premium Outlets.

CEQA - Draft Environmental Impact Report

An Environmental Impact Report (EIR) has been prepared for the project in accordance with the California Environmental Quality Act (CEQA) (available online at http://www.cityoflivermore.net/citygov/cdd/planning/environ.htm).

The City of Livermore contracted with Raney Planning and Management (Consultant) to prepare an Environmental Impact Report (EIR) for the Project. A Notice of Preparation (NOP) to prepare an EIR for the Project in accordance with the California Environmental Quality Act (CEQA) was prepared and released for a 30-day public review period from January 6, 2023, through February 6, 2023. On January 17, 2023, the Planning Commission held a public hearing to receive public comments on the NOP. Four comment letters were received during the review period and two public comments were made at the public comment hearing. Public comments received during the NOP review period have been included as part of Appendix A of the Draft EIR in accordance with CEQA.

A Draft EIR was subsequently prepared to the analyze the Project's impacts to the environment. The Draft EIR identified the project's potential environmental impacts and the mitigation measures that would be required to be implemented. The following items were identified as being potentially significant:

- Agricultural Resources;
- Air Quality, Greenhouse Gas Emissions, and Energy;
- Biological Resources;
- Cultural and Tribal Cultural Resources;
- Hydrology and Water Quality;
- Noise;
- Public Services and Utilities; and
- Transportation

The Draft EIR concluded all impacts to be less than significant with mitigation, with the exception of one impact related to Agricultural Resources which was determined to be significant and unavoidable. This impact is related to converting farmland to non-agricultural use. While the California Department of Conservation's Farmland Mapping and Monitoring Program does not classify the project properties as Farmland, LAFCo's criteria for Farmland classification differs from the State's criteria. Based on LAFCo's criteria, SMP 39 and SMP 40 have on-site soils that meet the criteria to be classified as Prime Farmland by LAFCo. Therefore, it was determined that the project would have a significant and unavoidable impact related to the conversion of farmland to non-agricultural use.

The Draft EIR was released for a 45-day public review period from August 30, 2023, through October 13, 2023. On October 3, 2023, the Planning Commission held a public hearing to receive public comments on the Draft EIR. Six comment letters were received during the Draft EIR public review period and three public comments were made at the public comment hearing. Public comments received during the Draft EIR review period have been included as part of the Final EIR in accordance with CEQA.

On January 16, 2024, a Final EIR for the Project was released including responses to all comments received during the Draft EIR public review period and associated revisions to the Draft EIR. The Final EIR also includes a Mitigation Monitoring and Reporting Program to ensure implementation of the mitigation measures identified within the EIR and Initial Study for the Project (Attachment 13). The City received three comment letters following the release of the Final EIR. Public comments received after the release of the Final EIR and associated responses to two of the comment letters are included in the

Response to Comments Memorandum (Attachment 14). The third comment letter was received over four weeks after the release of the Final EIR. Responses to this third comment letter will be provided in a supplemental packet in advance of the Planning Commission public hearing.

SUMMARY

Based on the analyses provided above, staff concludes that the Project, subject to conditions, provides a well-designed industrial development and complies with appropriate development standards, public improvements, and amenities that are adequate to support the community, consistent with the General Plan, Development Code, and Design Standards and Guidelines. The Project would be compatible with the surrounding development, create opportunities for new jobs and increased revenue for the City, and increase pedestrian and bicyclist connectivity that would serve the broader community.

RECOMMENDATION

Staff recommends the Planning Commission recommend the City Council take the following actions to authorize the future development of light industrial buildings on the SMP 39 and SMP 40 properties:

1. Adopt of resolution certifying the Final Environmental Impact Report pursuant to the California Environmental Quality Act (CEQA); and
2. Adopt a resolution approving Annexation/Prezoning (APZ) 21-003, Pre-Annexation and Development Agreement (DA) 21-001, Pre-Annexation and Development Agreement (DA) 23-002, General Plan Amendment (GPA) 21-001, Zoning Map Amendment (ZMA) 21-002, Development Code Amendment (DCA) 21-005, Planned Development-Industrial (PD-I) 22-001, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008.

The Planning Commission's action is a recommendation to the City Council.

ATTACHMENTS

1. Approximate Site Boundaries
2. Proposed Sphere of Influence Amendment Area
3. Proposed Annexation Area
4. SMP 39 Development Plans
5. SMP 40 Development Plans
6. Proposed Trail Connection Options
7. Surrounding Land Uses
8. SMP 39-SMP 40 Project Environmental Documents
9. Letter of Support - Shames Construction
10. Planning Commission Resolution - CEQA EIR
11. Exhibit A - Final EIR for the SMP 39-SMP 40 Project
12. Exhibit B - Findings, Facts in Support of Findings, and Statement of Overriding Considerations
13. Exhibit C - Mitigation Monitoring and Report Program for the SMP 39-SMP 40 Project
14. Exhibit D - Response to Comments Memorandum and Erratum
15. Planning Commission Resolution - Project Approval
16. Exhibit A - General Plan Amendment (GPA) 21-001

17. Exhibit B - Zoning Map Amendment (ZMA) 21-002
18. Exhibit C - Draft Planned Development Zoning
19. Exhibit D - Draft SMP 39 Development Agreement
20. Exhibit E - Draft SMP 40 Development Agreement
21. Exhibit F - Conditions of Approval

Prepared by: Ashley Vera
Senior Planner

LIVERMORE
CALIFORNIA

PLANNING COMMISSION STAFF REPORT **ITEM NO. 10.1**

DATE: March 5, 2024

TO: Chairperson and Members of the Planning Commission

FROM: Steve Riley, Acting Planning Manager

SUBJECT: Supplemental Materials received prior to the meeting.

RECOMMENDED ACTION

SUMMARY

These materials were posted online and made available to the public at the same time that they were distributed to the Planning Commission.

5.1 - Hearing to consider a request for an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Development Code Amendment, Vesting Tentative Parcel Map, Vesting Tentative Tract Map, Planned Development, and Site Plan Design Review for the SMP 39 and 40 Project to zone for and develop light industrial uses near the northwest part of the City.

Materials: Response to comments memorandum and errata, Conceptual site plan for SMP 39, Revised engineering consideration, Letters received in advance of the meeting, and Development agreements signed by the applicant.

DISCUSSION

ATTACHMENTS

1. Supplemental Materials

Prepared by: Michele Donley
Division Clerk

SMP 39/SMP 40 Project
Supplemental Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum

As mentioned in the memorandum entitled, "Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum", the City would be following up with a supplemental memorandum to provide responses to the "Attorneys for Carpenters Local 713" letter, dated February 14, 2024, which was received after the release of the Final Environmental Impact Report (EIR) for the SMP 39/SMP 40 Project (proposed project). This supplemental memorandum provides the responses to the above-referenced letter.

While CEQA does not require that written responses be provided for letters received after the close of the public review period, the comments are acknowledged by the City, and the City has chosen to prepare written responses to the comments for the decision-makers consideration in making an informed decision. Responses to the "Attorneys for Carpenters Local 713" comment letter, which is included as Attachment 1, are provided below. Where revisions to the EIR text are required in response to a comment, new text is double underlined and deleted text is ~~struck through~~.

The comments received did not identify any new significant impact, substantial increase in severity of a significant impact identified in the EIR, or any significant new information. Therefore, recirculation of the EIR is not required.

Response to Stephanie Papayanis, Attorneys for Carpenters Local 713
The majority of the comment letter, including the entirety of Comment I and Comment II(A) of the comment letter, is identical to the comment letter submitted by Attorneys for Carpenters Local 713 during the Draft EIR comment period. As such, with regard to Comment I and Comment II(A) included in the comment letter, please see Responses to Comments 5-3 and 5-5 included in the Final EIR.

The new concerns brought forth in the comment letter are limited to Comment II(B) and Comment II(C) related to biological resources and construction noise. Thus, responses to Comment II(B) and Comment II(C) are provided below.

Comment II(B) Related to Biological Resources
Responses to the commenter's concerns regarding biological resources are provided below, as informed by Monk & Associates (M&A), who prepared the project-specific Biological Resources Assessments (BRAs) used within the Draft EIR analysis. It should be noted that Comment II(B) is a summary of the comments provided in Exhibit D to the Attorneys for Carpenters Local 713 comment letter, which is a letter authored by Shawn Smallwood, PhD. As such, the following responses are organized based on the comments presented in Exhibit D of the Attorneys for Carpenters Local 713 comment letter.

Environmental Setting Informed by Field Surveys
Page 16 of the Exhibit D comment letter states: "The results of the Monk and Associates (2021, 2023) surveys have been misinterpreted in the reports, resulting in inaccurate characterizations of the existing environmental settings of SMP 39 and SMP 40." The commenter is referring to the fact that M&A biologists recorded fewer bird species on-site and flying overhead than the commenter did during a reconnaissance visit. The environmental setting or environmental

baseline of a project site is informed by much more than the number of birds and mammals one sees in a certain amount of time.

The CEQA Guidelines Section 15125(a) requires that the CEQA document prepared for a project discuss the "baseline" environmental conditions at and in the vicinity of the project sites. CEQA Guidelines Section 15125 (see also Section 15126.6(e)(2)) states the following regarding the environmental setting as it relates to baseline:

> (a) [the CEQA review document] must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to understanding the significant effects of the proposed project.

M&A conducted several surveys on each of the project sites. As explained in the SMP 39 BRA included as Appendix D to the Draft EIR, M&A survey work in the project area dates to the year 2000. However, because CEQA requires current baseline conditions, none of the plants or wildlife observed in the early 2000s were reported in the BRAs. The 2021 surveys are the baseline surveys that were conducted to record existing biological resources and to assess the likelihood of resource agency regulated areas on the project sites. The surveys involved searching all habitats on the sites and recording all plant and wildlife species observed. M&A cross-referenced the habitats found on the project sites against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species and if additional protocol level surveys would be necessary to assess potential impacts to special status species.

CEQA does not require an exhaustive list of all bird species that could occur on a project site, nor does CEQA require a discussion of what each species is doing at the time the species is observed. Rather, CEQA requires an analysis of potential impacts to special-status birds and/or nesting habitat for common birds that rise to the level of significance pursuant to CEQA as determined by an expert, based on database searches, field surveys, etc. M&A's BRAs provide that analysis and recommend pre-construction surveys to address potentially significant impacts. Overall, the BRAs meet the standards of care warranted under CEQA.

Habitat Loss

The commenter's estimate on the number of birds "denied to California" is primarily based on two studies. The commenter states that the two study sites have grassland/wetland/woodland complexes within agricultural matrices, and found total bird nesting densities of 32.8 and 35.8 nests per acre. The commenter uses one-third of such estimates for the project sites' calculation due to the annual discing that occurs on the project sites. However, the estimation is likely still an overestimate, as one study was conducted in a five-acre, undisturbed, unfragmented and preserved area within the over-500-acre University of Wisconsin Arboretum dedicated in 1934, adjacent to a 321-acre lake (Lake Wingra). The SMP 39 and SMP 40 project sites are not surrounded by hundreds of acres of preserved natural lands but rather the relatively small project sites are fragmented from natural areas by surrounding, existing development (busy roads, an airport, and active industrial uses).

The other study mentioned by the commenter was conducted within farmstead shelterbelts, or "man-made habitats consisting of parallel rows of trees and shrubs designed to protect farmsteads from damaging winds, drifting snow and blowing soil…" referred to as "wooded

islands." The study determined that the wooded islands are important for avifauna in regions of intensive agriculture and found many nests within the wooded region. The SMP 40 project site has a similar "wooded island," in that the wooded area that is a riparian corridor along Arroyo Mocho is being preserved within a riparian set back and will provide high-quality habitat for many nesting birds post-development. The preservation of Arroyo Mocho's riparian habitat was not considered in the commenter's calculations.

Further, the commenter's comparison of development of the proposed project to the high avian mortality rate by wind turbine collision in the Altamont Pass Wind Resource Area is not an appropriate comparison. The commenter is comparing 50-foot-tall buildings on the project sites to 430-foot-tall wind turbines with active, moving blades in a known avian migration zone; an area that supports the highest number of nesting Golden Eagles in the world.[1]

Regardless of the commenter's inappropriate comparison and overestimate of the number of birds "denied to California" due the loss of nesting habitat by the proposed projects, CEQA requires an analysis of potential impacts to special-status birds and/or nesting habitat for common birds that raise to the level of significance. Therefore, impacts to nesting birds were regarded as significant pursuant to CEQA in the Draft EIR. However, mitigation measures to protect special-status birds and all nesting birds have been prescribed in the Draft EIR (see Mitigation Measures 4.3-2[a] through 4.3-2[d] in the Draft EIR). The mitigation measures included therein reduce impacts to nesting birds to a less-than-significant level pursuant to the CEQA. Thus, the commenter's concerns about the projects' impacts to nesting birds have been sufficiently addressed.

Interference with Wildlife Movement
The commenter is correct that the Essential Habitat Connectivity Area mapped by the California Department of Fish and Wildlife (CDFW) is focused on connecting very large blocks of mostly protected natural lands. While the Draft EIR does state that the project sites are not located in this mapped area, that is only one sentence of the three-paragraph description under the Wildlife Movement Corridor section of the Draft EIR (see pages 4.3-14 to 4.3-15 of the Draft EIR). The comment implies that sufficient research and in-person assessments were not conducted accordingly, and that the determination that the project sites will not impact significant wildlife corridors was solely based on using the CDFW's Essential Habitat Connectivity Area map, which simply is not true.

For example, M&A conducted online research and project-specific field surveys to become informed about the project sites' habitats and the potential for any impacts to regional wildlife corridors based on development of the proposed projects. M&A recorded wildlife observed during site visits, in addition to extensively noting the habitat types and surrounding land uses during their visits and how the surrounding land uses would affect wildlife movement. As such, the commenter's statement that the conclusions of the Draft EIR regarding wildlife movement on the project site are speculative and conclusory is untrue.

Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors are extremely important habitats to preserve and are valuable for wildlife. While local wildlife may use the undeveloped sites in their current state, neither of the project sites currently provide a significant regional wildlife corridor that may be impacted by the proposed project. The project sites are regularly disced or disturbed for agriculture. For SMP 40, an

[1] National Audubon Society. *National Audubon Society Sues California County to Improve Bird Protections in Controversial Wind Energy Project.* Available at: https://www.audubon.org/news/national-audubon-society-sues-california-county-improve-bird-protections#:~:text=17%2C%202021)%2D%2DThe%20National,turbine%20facility%20at%20Altamont%20Pass%2C. Accessed February 2024.

industrial development, Oaks Business Park, is located to the north of the project site, east of the project site is Isabel Avenue, a heavily-trafficked road, south is an active railroad track and Stanley Boulevard, another heavily-trafficked road, and west of the project site are quarry ponds. SMP 39 is bordered by West Jack London Boulevard, a well-trafficked road, the Livermore Municipal Airport, the Oaks Business Park, and quarry ponds. The quarry ponds were excavated in uplands and, thus, are not associated with a creek or drainage, and have nearly vertical slopes, preventing wildlife from traversing the ponds easily or using the quarry area as a corridor. As mentioned in M&A's BRAs, both SMP 39 and SMP 40 are isolated from regional open spaces, and, as such, do not have regional wildlife corridor value for terrestrial mammals and contain minimal habitat that could be used by some migrating avian species.

The commenter states: "On the other hand, the coyote I saw on site got there somehow, and so did the ground squirrels and pocket gophers, and so did all of the birds I saw on and over SMP 39." One might infer from this statement that M&A's reports and the Draft EIR implied that wildlife do not use, or could not be found on the project sites, which is incorrect. Each of M&A's BRAs included a table of wildlife species observed on the project sites during site visits, which, as described in the BRAs, is not intended to be exhaustive or to describe the only species that could be found on the project sites. Rather, the focus was, as required by CEQA and as appropriate, on the assessment of biological resources with regard to suitable habitat and potential for the occurrence of any special-status species, as determined by a qualified biologist for the purposes of an impact analysis. Movement of a species through an area or an area's incidental use does not necessarily imply importance to the species, the characteristics of the habitat are more relevant.

For example, Figure 3 of the commenter's report shows the fly over and resting locations of Golden Eagles, which provides an example of how local wildlife may use the project sites as well as all surrounding areas, including properties completely developed with warehouses and surrounded by busy roads. However, while species such as the Golden Eagle may use the project site for foraging or resting on occasion, or may flyover, it is clear that the project sites are not the main sites that are relied upon by these large raptors for any of the above functions, or for nesting, as the existing trees are too small and in close proximity to disturbance.

The SMP 40 riparian area may provide significantly more suitable rest, foraging and nesting habitat for many bird species than the open and disturbed grassland does. However, as previously described, the riparian area on SMP 40 will be completely preserved within a riparian setback and will continue to connect local wildlife within the riparian corridor along the Arroyo Mocho.

The commenter also mentions that 19 special-status species so far have been documented on the project site, as further detailed in Table 1 of the commenter's report. However, the commenter's list includes species that do not meet the definition of "rare" pursuant to the CEQA. For example, Table 1 includes Red-tailed Hawk (*Buteo jamaicensis*), California Gull (*Laus californicus*), Double-crested Cormorant (*Phalacrocorax auritus*), Nuttall's Woodpecker (*Picoides nuttallii*), and Oak Titmouse (*Baeolophus inornatus*), which are designated as Birds of Prey (BOP), Birds of Conservation Concern (BCC) by U.S. Fish and Wildlife Service, and Taxa to Watch List. However, the aforementioned listings are not considered special-status under the California or Federal Endangered Species Acts (CESA and FESA), by other regulations, or by the scientific community pursuant to the CEQA. Nonetheless, it should be noted that these species, their nests, eggs and/or young are provided protection pursuant to other resource agency regulations such as the Migratory Bird Treaty Act (MTBA) and the California Fish and Game Code Sections 3503, 3503.5, 3511, and 3513C, which are both fully accounted for and discussed in M&A's BRAs and the Draft EIR.

In addition, the commenter does not specify which of the 19 species were observed during his site visit, or which were taken as observations from eBird. While many experienced birders may use eBird, anyone can report incidental bird sightings to eBird without any way to confirm the qualifications of the observer. As such, relying only on eBird data to say confidently that a special-status species is present on a property is not sufficient and would need to be confirmed by a qualified biologist. As mentioned by the commenter, several of the species sightings are birds flying over the project sites. As discussed in sections above, observing sensitive birds flying over a property, foraging over the site, or using the habitat on the sites during the non-nesting season does not warrant reporting to the California Natural Diversity Database (CNDDB), as such sightings are not of permanent breeding/nesting/larval development habitat (dependent on what type of animal it is) that warrant protection. The types of "incidental" sightings of common bird species do not necessarily translate into a "potentially significant biological impact" pursuant to CEQA Guidelines and regulations.

Further, while the project sites in their current state may be used by local wildlife, they provide very low value for foraging, resting or nesting, as the project sites are mainly comprised of non-native ruderal herbaceous habitats and are highly disturbed due to agricultural practices. The project sites are not one of the last remaining stopover and staging opportunities in the region, as stated by the commenter, as acres of undeveloped land similar to the project sites is located within the very immediate area, as well as dozens of local parks. The 80-acre Shadow Cliffs Regional Recreation Area is less than two miles from the project sites and the 160-acre Doolan Canyon Regional Preserve beyond provides more undeveloped land to the north. All of the aforementioned habitats in the region provide habitat for the species listed in the table of wildlife observed included in Exhibit D of the comment letter, and have far greater wildlife corridor habitat value than the project sites. The commenter's concerns about the loss of the ruderal habitats on-site should be assuaged by the fact that more trees and shrubs will be planted on the project sites post-development than are currently on site, which will provide additional stopover opportunities for birds.

Finally, as previously mentioned, the Arroyo Mocho runs along the southern project site boundary of SMP 40. Arroyo Mocho may serve as a local movement corridor for mammals, amphibians, and reptiles to move unobtrusively through the general geographic area. Animals moving along Arroyo Mocho could leave the Arroyo and enter the project site to move across the landscape. Such animals expected to migrate along the Arroyo and possibly enter the upland areas of the project site are common species such as coyote, raccoons, skunks, deer, and rodents, and would be able to navigate their way around SMP 40 even after the site was developed. The Arroyo Mocho would remain unchanged by the proposed project and as such, the wildlife corridor values of the channel would remain intact. Under all circumstances, any disruption to the very localized use of the project sites by common wildlife species would not be regarded as a potentially significant impact pursuant to CEQA.

Traffic Impacts to Wildlife

Common wildlife associated with humans and urban development such as Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*) and raccoon (*Procyon lotor*) are often involved in vehicle collisions. However, the aforementioned species and other common wildlife species, including Mourning Dove (*Zenaida macroura*) and northern pacific rattlesnake (*Crotalus oreganus*), are not considered special-status or rare. In addition, while roadkill is present in the vicinity of the project sites, as is the case at any area with road traffic, the approximation included in Exhibit D of the comment letter is likely an overestimate, as the numbers are based on another study that is not directly comparable to the project area. Vasco Road is the principal north-south route between eastern Alameda and Contra Costa Counties, traveled by approximately 22,000 vehicles per day. Increased traffic to the project sites on local roadways, Isabel Avenue and West

Jack London Boulevard, is not comparable to the heavily trafficked Vasco Road, which is a corridor in the middle of hundreds of acres of protected open space lands and significant wildlife habitat. By contrast, Stanley Boulevard and I-580, near the project sites, are already heavily trafficked roads in a developed region and the increase in vehicles associated with the project sites would not contribute significantly to the existing traffic volumes on these roads daily. Moreover, regulations that protect common wildlife species that could be killed by vehicular traffic do not exist. As such, vehicle collisions that result in the mortality of wildlife do not constitute a significant impact pursuant to CEQA.

Western Burrowing Owl Mitigation

The CDFW has not released an official statement that the avian breeding season has changed. In M&A's experience, when permits are acquired from the CDFW, the nesting season window can vary slightly. Some permits say February 1 through August 31, while others say February 15 through September 1. The variation in start and end dates could be based on geography, as different geographic regions have slightly different nesting windows. In fact, the CDFW acknowledges a certain amount of variation in the 2012 CDFW Staff Report on Burrowing Owl Mitigation, which states, "In California, the burrowing owl breeding season extends from 1 February to 31 August (Haug et al. 1993, Thompsen 1971) with some variances by geographic location and climatic conditions." Nonetheless, in response to the comment, Mitigation Measure 4.3-2(a) included in the Draft EIR is hereby revised as follows:

Western Burrowing Owl

4.3-2(a) *If project construction begins during the western burrowing owl nesting season (February 1~~5~~ to August 31), a qualified biologist shall conduct targeted burrowing owl nest surveys within 14 days prior to construction activities using seven- to 20-foot transects. A separate preconstruction survey shall be conducted for SMP 39 and SMP 40 (including the off-site trail connection area) if the components of the project are not constructed concurrently. The survey shall include the project site and all accessible areas within 500 feet of the project impact zone, and shall follow CDFW guidelines outlined in the 2012 Staff Report on Burrowing Owl Mitigation. The results of the survey shall be submitted to the City of Livermore Community Development Department within 30 days of the completed survey. The survey report shall be valid for one construction season.*

If western burrowing owls are not detected on-site during the survey, further mitigation shall not be required. If any western burrowing owls are detected on-site, pursuant to the CDFW's 2012 Staff Report on Burrowing Owl Mitigation, the following restricted activity dates and setback distances shall be implemented:

- *From April 1 through October 15, low disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests.*
- *From April 1 through August 15, medium disturbance activities shall have a 500-meter buffer from occupied nests. Medium disturbance activities can have a reduced buffer of 200 meters starting August 16 through October 15.*
- *From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests.*
- *Earth-moving activities or other disturbance shall not occur within the aforementioned buffer zones of occupied burrows*

unless monitoring of the nest site by a qualified biologist determines that the owls are acclimated to the disturbance and would not be disturbed by a smaller buffer. The buffer zones shall be fenced.

- *A qualified biologist shall delineate the extent of burrowing owl habitat on the site.*
- *Owls may be passively relocated from the project site between October 1 and February 1. Passive removal shall be conducted by a qualified biologist with demonstrated experience with passive relocation.*
- *Credits shall be purchased from a mitigation bank in coordination with CDFW and the City of Livermore to offset the project's habitat loss on the burrowing owl.*

A report detailing compliance with the provisions set forth herein shall be prepared by the qualified biologist and submitted for review and approval to the City of Livermore Community Development Department.

Further, M&A biologists have conducted several surveys, some of which are dated October 2000; March 11, 2002; May 11 and 20, 2002; June 14 and 25, 2002; September 2003, November 2013, June 10, 2019, November 2019, September 10, 2021, November 13, 2021, and June 15, 2022. The aforementioned surveys conducted in May and June were focused Burrowing Owl breeding season surveys conducted in accordance with the CDFW 1995 Staff Report protocol. Burrowing owl, or signs of burrowing owl, were not observed during any of the M&A surveys. Thus, based upon M&A's multiple surveys of the project site spanning multiple years, evidence suggests that burrowing owls have not nested on-site for the following reasons: (1) the grass grows very tall on SMP 40 in between discing activities, which does not allow ground nesting birds, such as the burrowing owl, an opportunity to detect aerial predators, which likely discourages them from nesting; (2) discing activities may disrupt nesting attempts.

Based on habitat assessments and past negative survey results, M&A believes that burrowing owls are unlikely to nest on-site. However, given that the burrowing owl is a mobile species, a mitigation measure for preconstruction surveys was provided in the Draft EIR to ensure that "take" of burrowing owls does not occur. The prescribed preconstruction surveys, consistent with "take avoidance surveys" outlined in the CDFW's Staff Report 2012, are sufficient and appropriate to detect nesting owls should the species be present on-site in light of the prior surveys' negative results, including a year of protocol-level breeding season surveys. Burrowing owls residing in topographically flat areas are typically easy to detect if surveys consist of walking transects using high-powered binoculars. As such, the mitigation measure included in the Draft EIR is sufficient to reduce any potential project impacts on burrowing owl to a less-than-significant level.

Tricolored Blackbird Mitigation

As stated above, M&A biologists have been on both project sites multiple times over the last 20 years. Tricolored blackbirds have not been observed on-site and on-site habitat for the species is marginal, as the sites are routinely disturbed, water is not present on SMP 39, and Arroyo Mocho at SMP 40 is typically dry during the middle to end of the nesting season. The tricolored blackbird prefers nesting near water. The preconstruction surveys proposed in the Draft EIR to determine if tricolored blackbird is nesting on-site are sufficient to detect the species' presence. The species can also be looked for during the burrowing owl surveys, which will take place at the same time as tricolored blackbird nesting season.

Nesting Bird and Raptor Mitigation
As discussed above, the CDFW has not released an official statement that the avian breeding season has changed. In M&A's experience when permits are acquired from the CDFW, the nesting season window can vary slightly, as different geographic regions have slightly different nesting windows.

In addition, with regard to nest detection, while grassland nesting birds are difficult to detect, M&A biologists are experienced in surveying for ground-nesting and short grass nesting birds and have had success finding nests in the past. Typically, if pedestrian walking transect surveys are conducted by two or more people walking closely together, nests will be found. Further, if experienced consulting biologists are hired to conduct the nesting bird surveys, the biologists will know the appropriate methods to survey for nesting passerine birds, including the Loggerhead Shrike, and raptors. The most suitable habitat for Loggerhead Shrike on the project sites is along SMP 40's riparian corridor, which will be preserved by the project. Many trees along the riparian corridor and south of the project site could serve as a blind for the observer to hide behind and watch bird behavior to determine if birds are nesting. Finally, the qualified biologist making the nesting buffer determination would provide a report to the City of Livermore and communication between the City of Livermore, the applicant's biologist, and the construction team would be ongoing throughout the construction period. The biologist will ensure that the buffer is maintained throughout construction to ensure that the nesting attempt is protected.

While development does remove potential bird nesting habitat, the project applicant is avoiding the riparian corridor on the SMP 40 project site, which is the most valuable nesting habitat on-site. Additionally, in accordance with City of Livermore General Plan Policy OSC-1.3 P1, as presented on page 4.3-21 of the Draft EIR, the proposed project is required to landscape with native vegetation.

Based on the above, changes to the Draft EIR mitigation for nesting birds and raptors are not warranted.

<u>Comment II(C) Related to Construction Noise</u>
As discussed on page 4.6-21 of the Draft EIR, due to the substantial distance between SMP 39 and the sensitive noise receptors, it was anticipated, based on the professional judgment of the project noise consultant, that construction noise associated with SMP 39 would be below the City of Livermore's exterior noise level threshold at the nearest sensitive receptor locations. In response to the comments regarding construction noise impacts associated with SMP 39, Salter, the project noise consultant who prepared the project-specific Environmental Noise Studies used in the Draft EIR analysis, estimated the construction noise levels associated with SMP 39 at the nearest noise sensitive receptor to the site (see Attachment 2). In addition, in response to the comments regarding construction noise impacts associated with SMP 40, Salter provided an updated analysis of construction noise associated with SMP 40 (see Attachment 3). Because construction is not permitted during nighttime hours (pursuant to Section 9.36.080 of the Livermore Municipal Code), the applicable noise level threshold for construction noise levels associated with SMP 39 and SMP 40 would be 70 dBA L_{max}, as established by the City of Livermore (see Draft EIR page 4.6-14 and General Plan Policy N-1.5 P3).

The commenter alleges that Table 9-7, Land Use Compatibility Guidelines for Exterior Noise, of the General Plan applies to construction noise; this is not correct. As stated in General Plan Policy N-1.1 P4, presented on page 4.6-8 of the Draft EIR, the City shall use the Land Use Compatibility Guidelines for Exterior Noise (measured in dBA CNEL or L_{dn}) contained in Table 9-7 (i.e., the DNL 60 dBA exterior noise level standard referenced in the comment letter) to direct the siting, design, and insulation of new development to reduce exposure to excessive noise. Construction

noise standards are established in General Plan Policies N-1.5 P2, P3, and P4, as presented on page 4.6-12 of the Draft EIR, which do not include a DNL standard. In particular, General Plan Policy N-1.5 P3 states that in order to allow for temporary construction, demolition or maintenance noise and other necessary short-term noise events, the stationary noise standards in Policy N-1.5.P1 shall not be exceeded within the receiving land use by more than 15 dBA for any period of time. General Plan Policy N-1.5.P1 requires that industrial and commercial uses be designed and operated so as to avoid the generation of noise effects on surrounding sensitive land uses from exceeding 55 dBA L_{50} during the hours of 7:00 AM to 10:00 PM and 45 dBA L_{50} during the hours of 10:00 PM to 7:00 AM. Thus, for analysis purposes of project construction noise within the Draft EIR, the threshold of significance for the maximum allowable construction noise level at a sensitive receptor is 70 dB L_{max} during daytime hours and 60 dB L_{max} during nighttime hours (i.e., 15 dB above the numerical criteria listed in P1). Consequently, the DNL 60 dBA exterior noise level standard included in the comment letter would not apply to the temporary, intermittent construction noise associated with either SMP 39 or SMP 40.

Based on the comments regarding construction noise impacts associated with SMP 39 and SMP 40, pages 4.6-21 through 4.6-24 of the Draft EIR are hereby revised as follows. Such revisions are also reflected in the Revised Environmental Noise Studies for SMP 39 and SMP 40, included as Attachment 2 and Attachment 3 to this memo. It should be noted that all revisions to pages 4.6-22 through 4.6-24 of the Draft EIR previously included in the Final EIR are also shown in ~~strikethrough~~ and <u>double underlined</u> text below.

> ~~Due to the substantial distance between SMP 39 and the sensitive noise receptors, it was anticipated that~~ <u>The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction. Table 4.6-6 shows maximum noise levels associated with each piece of construction equipment anticipated to be used during construction of SMP 39 at a reference level of 50 feet, as well as at 2,640 feet, which is the distance from Building 1 on the SMP 39 site to the nearest sensitive receptors (the residences located across Isabel Avenue to the east). Based on the project-specific construction schedule assumed in the air quality analysis conducted for SMP 39, Table 4.6-7 summarizes the anticipated construction equipment associated with each phase of project construction, and the relative sound levels at the nearest residential property (approximately 2,640 feet away), assuming that equipment is running simultaneously during each phase of construction. As shown in Table 4.6-7,</u> construction noise associated with SMP 39 <u>would range between 59 and 61 dBA L_{max},</u> ~~be~~ <u>which would be</u> below the City of Livermore's exterior noise level threshold of ~~60~~ <u>70</u> dBA ~~DNL~~ <u>L_{max}</u> at the nearest sensitive receptor locations. ~~Thus, construction noise levels for SMP 39 were not evaluated as part of the Environmental Noise Study prepared for SMP 39. Therefore, the following discussion focuses on SMP 40 and the off-site trail connections.~~

Table 4.6-6
Typical Construction Equipment Noise at SMP 39

Equipment	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 50 feet)	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 2,640 feet)
Aerial Lift	83	49
Air Compressors	81	47
Cement and Mortar Mixers	85	51
Concrete/Industrial Saws	76	42
Cranes	83	49
Drill Rig of Shoring Beams (Caisson Drilling)	85	51
Excavators	85	51
Forklifts	83	49
Generator Sets	81	47
Graders	85	51
Paving Equipment	89	55
Rollers	74	40
Rubber-Tired Dozers	85	51
Tractors/Welders/Backhoes	84	50
Welders	73	39

Source: Salter, 2024.

Table 4.6-7
Construction Equipment Noise Levels at Nearest Receptor – SMP 39

Offroad Equipment Type	Amount	Usage Hours	Resulting L_{max}
Grading			
Excavators	2	8	54
Graders	1	8	51
Rubber Tired Dozers	1	8	51
Scrapers	2	8	54
Tractors/ Loaders/ Backhoes	2	8	53
All Grading Equipment Running Simultaneously			**60**
Paving			
Pavers	2	8	58
Paving Equipment	2	8	58
Rollers	2	8	43
All Paving Equipment Running Simultaneously			**61**
Building Construction			
Cranes	1	7	49
Forklifts	3	8	54
Generator Sets	1	8	47
Tractors/ Loaders/ Backhoes	3	7	56
Welders	1	8	39
All Building Construction Equipment Running Simultaneously			**59**
Architectural Coating			
Air Compressors	1	8	47

Source: Salter, 2024.

~~The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction.~~ Table 4.6-~~6~~ 8 shows maximum noise levels associated with ~~typical~~ each piece of construction equipment anticipated to be used during construction of SMP 40 at a reference level of 50 feet, as well as at ~~884~~ 600 feet, which is the distance from the ~~proposed Building~~

~~2 on~~ northeast corner of the SMP 40 site to the nearest residences across Isabel Avenue/SR 84. Based on the project-specific construction schedule assumed in the air quality analysis conducted for SMP 40, Table 4.6-9 summarizes the anticipated construction equipment associated with each phase of project construction, and the relative sound levels at the nearest residential property (approximately 600 feet away), assuming that equipment is running simultaneously during each phase of construction.

Table 4.6-~~6~~ 8
Typical Construction Equipment Noise at SMP 40

Equipment	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 50 feet)	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at ~~884~~ 600 feet)
~~Demolition~~		
Concrete/Industrial Saw	76	~~19~~ 54
Excavators	85	~~28~~ 63
Rubber-Tired Dozer	85	~~28~~ 63
Tractor/Loader/Backhoe	84	~~27~~62
~~Site Preparation~~		
Grader	85	~~28~~ 63
~~Rubber-Tired Dozer~~	~~85~~	~~28~~
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~
~~Grading/Excavation~~		
Drill Rig for Shoring Beams (Caisson Drilling)	85	~~28~~ 63
~~Excavators~~	~~85~~	~~28~~
~~Rubber-Tired Dozer~~	~~85~~	~~28~~
~~Tractor/Loader/ Backhoe~~	~~84~~	~~27~~
~~Trenching~~		
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~
~~Excavators~~	~~85~~	~~28~~
~~Building Exterior Construction~~		
Crane	83	~~26~~ 61
Fork Lift	83	~~26~~ 61
Generator Sets	81	~~24~~ 59
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~
Welders	73	~~16~~ 51
~~Building Interior Construction/Architectural Coating~~		
Aerial Lift	83	~~26~~ 61
Air Compressors	81	~~24~~ 59
~~Paving/Landscaping/Site Concrete~~		
Cement and Mortar Mixers	85	~~28~~ 63
Paving Equipment	89	~~32~~ 67
Rollers	74	~~17~~ 52
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~

Source: Salter, ~~2023~~ 2024.

Table 4.6-9
Construction Equipment Noise Levels at Nearest Receptor – SMP 40

Offroad Equipment Type	Amount	Usage Hours	Resulting L_{max}
Grading			
Excavators	2	8	66
Graders	1	8	63
Rubber Tired Dozers	1	8	63
Scrapers	2	8	66
Tractors/ Loaders/ Backhoes	2	8	65
All Grading Equipment Running Simultaneously			**72**
Paving			
Pavers	2	8	70
Paving Equipment	2	8	70
Rollers	2	8	55
All Paving Equipment Running Simultaneously			**73**
Building Construction			
Cranes	1	7	61
Forklifts	3	8	66
Generator Sets	1	8	59
Tractors/ Loaders/ Backhoes	3	7	67
Welders	1	8	51
All Building Construction Equipment Running Simultaneously			**70**
Architectural Coating			
Air Compressors	1	8	59

Source: Salter, 2024.

As shown in ~~the table~~ Table 4.6-7, construction of SMP 40 is predicted to generate noise levels ranging between ~~16~~ 70 to ~~32~~ 73 dBA L_{max} at the nearest noise-sensitive receptors. As discussed in detail above, for analysis purposes of project construction noise within this EIR, a threshold of significance for the maximum allowable construction noise level at a sensitive receptor has been assumed to be 70 dB L_{max} during daytime hours ~~and 60 dB L_{max} during nighttime hours~~. Because construction is not permitted during nighttime hours (pursuant to Section 9.36.080 of the Livermore Municipal Code), the 60 dB L_{max} noise level standard for nighttime hours would not apply to the proposed project. ~~Accordingly~~ Nonetheless, the maximum predicted construction noise level of ~~32~~ 73 dBA L_{max} associated with SMP 40 would be ~~below~~ above the threshold~~s~~ of significance being applied.

The three potential off-site trail connection options would be located approximately 160 feet, 150 feet, and 200 feet, respectively, west of the nearest single-family residences. The anticipated construction activities required for the trail connection options would use construction equipment anticipated to generate maximum noise levels of up to 85 dB at a distance of 50 feet. As previously noted, stationary noise sources lessen at a rate of approximately six dB per doubling of distance from the source. Therefore, at a distance of 160 feet, construction equipment associated with Trail Connection Option 1 would generate maximum noise levels of up to 75 dB L_{max}; at a distance of 150 feet, construction equipment associated with Trail Connection Option 2 would generate maximum noise levels of up to 76 dB L_{max}; and at a distance of 200 feet, construction equipment associated with Trail Connection Option 3 would generate maximum noise levels of up to 73 dB L_{max}. Thus, construction activities associated with development of the off-site trail connection options would exceed the thresholds of significance being applied of 70 dB L_{max} during daytime hours ~~and 60 dB L_{max} during nighttime hours~~.

Based on the above, construction-related noise associated with SMP 39 ~~and SMP 40~~ would not result in the generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local

general plan or noise ordinance, or applicable standards of other agencies. However, while construction activities are temporary in nature and would be exempt during the hours of 7:00 AM to 8:00 PM, construction-related noise associated with SMP 40 and the off-site trail connection could result in disturbance to existing noise-sensitive land uses in the project vicinity.

Therefore, construction-related noise associated with the proposed project could be considered to result in generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and impacts would be considered ***significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.6-1(a) *Prior to issuance of a grading permit for SMP 40, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included within the plans and specifications for SMP 40, subject to review and approval by the City of Livermore Community Development Department. The project applicant shall demonstrate, to the satisfaction of the City that the project complies with the following:*

- *Consistent with the Livermore Municipal Code, construction shall be limited to weekdays between the hours of 7:00 AM and 8:00 PM and Saturdays through Sunday between the hours of 9:00 AM and 6:00 PM.*
- *Either a temporary noise barrier shall be built prior to development of the planned berm on the east side of the project site, or the berm shall be built prior to construction activities. The barrier/berm shall be a minimum of 10 feet tall. The barrier can be field-built provided it meets the following criteria:*
    - *The barrier shall be constructed to have a minimum surface density of four pounds per square foot (psf). For example, a stud wall with exterior-grade plywood sheathing and a stucco finish (or two layers of 5/8-inch thick plywood).*
    - *The barrier shall be free of cracks, and drainage holes/slots along the bottom of the barrier shall be kept to a minimum. Where needed, drainage holes/slots shall be covered by one psf mass-loaded vinyl flaps (e.g., Kinetics KNM-100) so water can flow around the vinyl and still drain.*
    - *Joints between sheathing layers shall be offset by 16 inches minimum.*
- *Contractors shall use "quiet" models of air compressors and other stationary noise sources, where technology exists.*
- *Internal combustion engine-driven equipment shall be equipped with mufflers which are in good condition and appropriate for the equipment.*
- *Stationary noise-generating equipment, such as air compressors and portable power generators, shall be located as far away as possible from adjacent property lines.*

- *Staging areas and construction material areas shall be located as far away as feasible from adjacent residences.*
- *All unnecessary idling of internal combustion engines should be prohibited.*
- *The contractor shall designate a "noise disturbance construction superintendent" who will be responsible for tracking and responding to any complaints about construction noise. The noise disturbance construction superintendent shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall require that reasonable measures are implemented to correct the problem. The telephone number for the noise disturbance construction superintendent shall be posted at the construction site and included in any construction notices sent to neighbors.*

4.6-1(b) *Prior to issuance of a grading permit for the chosen off-site trail connection option, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included within the plans and specifications for the trail connection option, subject to review and approval by the City of Livermore Community Development Department. The project applicant shall demonstrate, to the satisfaction of the City that the project complies with the following:*

- *All heavy construction equipment used on the proposed project shall be maintained in good operating condition, with all internal combustion, engine-driven equipment fitted with intake and exhaust mufflers that are in good condition.*
- *All mobile or fixed noise producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency shall comply with such regulations while ~~in the source of~~ involved with a project activity.*
- *Where feasible, electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment.*
- *All stationary noise-generating equipment shall be located as far away as possible from the nearest residential uses.*
- *Signs prohibiting unnecessary idling of internal combustion engines shall be posted at entrances to construction sites and at construction equipment staging areas.*
- *The use of noise-producing signals, including horns, whistles, alarms and bells shall be for safety warning purposes only.*
- *The use of temporary sound barriers shall be incorporated along the outer work area of the construction site, east of Isabel Avenue/SR 84. Barrier height and location(s) shall be determined by a qualified acoustical engineer to ensure that the resultant construction noise levels at the nearest residence would meet the applicable standard. The sound barrier fencing shall consist of 0.5-inch plywood or minimum STC 27 sound curtains placed to shield nearby sensitive receptors. The plywood barrier shall be free from gaps, openings, or penetrations to ensure maximum performance.*

Due to the addition of Table 4.6-7, all subsequent tables included in Chapter 4.6, Noise, of the Draft EIR are hereby renumbered accordingly.

While a new mitigation measure (Mitigation Measure 4.6-1[a]) has been added as part of the text revisions above, under *Laurel Heights Improvement Ass'n v Regents of Univ. of Cal.* (1993) 6 C4th 1112 (*Laurel Heights II*) and Section 15088.5 of the State CEQA Guidelines,[2] a lead agency is only required to recirculate a draft EIR when "significant new information" is added to the document after public notice is given of the availability of the Draft EIR for public review under Section 15087 but before certification. Pursuant to CEQA Guidelines Section 15088.5, the term "information" can include changes in the project or environmental setting, as well as additional data or other information. New information added to an EIR is not considered "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the City has decided not to implement. "Significant new information" requiring recirculation includes any of the following:

1. A new significant environmental impact would result from the project or for a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from other previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
4. The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

In the case of the proposed project, the Draft EIR already determined that the proposed project would result in a significant temporary construction noise impact (see page 4.6-23 of the Draft EIR). Thus, a new noise impact has not been identified in response to public comments. Rather, in response to public comments, a new construction noise mitigation measure (Mitigation Measure 4.6-1[a]) has been added that would clearly lessen the potential environmental impact to a less-than-significant level, and the applicant has agreed to adopt Mitigation Measure 4.6-1(a). In addition, the requirements of Mitigation Measure 4.6-1(a) are similar to the requirements already included in Mitigation Measure 4.6-1 of the Draft EIR. Thus, according to Section 15188.5(a)(3), recirculation is not required.

The Mitigation Monitoring and Reporting Program, as well as the Findings, Facts in Support Of Findings, and Statement Of Overriding Considerations, will be updated in accordance with the changes shown above and included in the staff report packet for the City Council hearing on the proposed project.

Attachments
Attachment 1 – Attorneys for Carpenters Local 713 Comment Letter
Attachment 2 – SMP 39 Revised Environmental Noise Study
Attachment 3 – SMP 40 Revised Environmental Noise Study

[2] Stephen L. Kostka and Michael H. Zischke. *Practice Under the California Environmental Quality Act, Second Edition, March 2022 Update, Volume 2*. March 2022, pg. 16-21.

Attachment 1

Attorneys for Carpenters Local 713 Comment Letter

VIA E-MAIL

February 14, 2024

Ashley Vera, Associate Planner
City of Livermore
1052 S. Livermore Avenue
Livermore, CA 94550
Em: Asvera@livermoreca.gov

RE: City of Livermore's SMP 39 and 40 Planning Commission Meeting

Dear Ashley Vera,

On behalf of "**Carpenters Local 713**", my Office is submitting these comments for the City of Livermore's ("**City**") Draft Environmental Impact Report ("**Draft EIR**" or "**DEIR**") and Final Environmental Impact Report ("**Final EIR**" or "**FEIR**") for the **February 20, 2024 Planning Commission Meeting** for the SMP 39 and 40 Project ("**Project**").

According to the Project's Notice of Availability ("**NOA**") of a Draft EIR Project Description:

> "On **SMP 38**, the proposed project includes a Sphere of Influence (SOI) Amendment to **include** SMP 38 within the **City of Livermore** SOI and **remove** it from the **City of Pleasanton's** SOI. The City of Livermore General Plan land use designation for SMP 38 would remain Limited Agriculture and Open Space/Sand and Gravel and the Alameda County zoning designation would remain Agriculture. **Development of SMP 38** is **not proposed**.
>
> For **SMP 39**, the proposed project would include development of a total of **up to six light industrial buildings**, consisting of **up to approximately 755,500 square feet** (sf) of new building space, and associated **internal roadways** and **other** improvements. **For SMP 40**, the proposed project would include development of **two industrial**

buildings containing up to **759,275 sf of new building space** with related **internal roadways** and **other** improvements. A number of approvals would be required for development of SMP 39 and SMP 40, including a **SOI Amendment for SMP 39**, **General Plan Amendment**, **Pre-zoning** and **Annexation**, **Zoning Map Amendment**/Planned Development, Vesting Tentative Subdivision **Maps**, a **Pre-Annexation Agreement**, and **Development Agreement**. A **Site Plan Design Review** entitlement is required for SMP 39 and SMP 40, which would include a review of the site plan, building, and landscape design; however, the entitlement is **only proposed for SMP 40 at this time**. A Site Plan Design Review entitlement will be required **at a later date** for the future development of **SMP 39**. In addition, the proposed project would include **annexation of four additional parcels** (APNs 904-10-2-3, -5, -7, and -8) located **east of SMP 40**. Development is **not proposed** on the additional parcels **as part** of the proposed project.

The project would include a **paved at-grade, on-site trail along the boundaries** of the SMP 40 site, consistent with the City's Active Transportation Plan. Specifically, the on-site trail would extend from the northeastern corner of the site, along the project site's eastern, southern, and western boundaries, before connecting to an existing off-site paved shared-use path at the northwestern corner of site, which extends along the west side of the Oaks Business Park to the north and connects to West Jack London Boulevard.

In addition, the project would include a **new off-site connection to the existing Arroyo Mocho Trail**, located on the east side of Isabel Avenue/SR 84. For the purposes of the Draft EIR analysis, three alternatives for the proposed off-site Isabel Avenue/SR 84 crossing to the existing Arroyo Mocho Trail are considered and evaluated in the Draft EIR, including the following, and described in more detail in the Draft EIR:

- Trail Connection Option 1 – **At-Grade** Crossing at **Discovery Drive**;
- Trail Connection Option 2 – **Undercrossing** at **Isabel** Bridge; and

- Trail Connection Option 3 – **Overcrossing** of **Isabel** Avenue/SR 84."

NOA of Draft EIR, pp. 1-2, emph. added.

The concurrently circulated Draft EIR contains the same project description. DEIR, pp. 1-2—1-4.

Carpenters Local 713 is a labor union representing union carpenters in Alameda County , and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects.

Local 713 members live, work, and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

Carpenters Local 713 expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

Carpenters Local 713 incorporates by reference all comments related to the Project or its CEQA review, including the Environmental Impact Report. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, Carpenters Local 713 requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT

The City should require the Project to be built using local workers who have graduated from a Joint Labor-Management Apprenticeship Program and make a commitment to hiring a local workforce.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

> voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 ("**AB2011**"). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts.

II. THE PROJECT WOULD BE APPROVED IN VIOLATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

A. Background Concerning the California Environmental Quality Act

The California Environmental Quality Act is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. 14 California Code of Regulations ("**CEQA Guidelines**"), § 15002, subd. (a)(1).[5] At its core, its purpose is to "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

1. Background Concerning Environmental Impact Reports

CEQA directs public agencies to avoid or reduce environmental damage, when possible, by requiring alternatives or mitigation measures. CEQA Guidelines, § 15002, subds. (a)(2)-(3); see also *Berkeley Keep Jets Over the Bay Committee v. Board of Port Comes* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *Laurel Heights Improvement Assn.*, 47 Cal.3d at p. 400. The EIR

[5] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 et seq., are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. Cal. Pub. Res. Code, § 21083. The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217.

serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA Guidelines, § 15002, subd. (a)(2). If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in Public Resources Code section 21081. See CEQA Guidelines, § 15092, subds. (b)(2)(A)-(B).

While the courts review an EIR using an 'abuse of discretion' standard, the reviewing court is not to *uncritically* rely on every study or analysis presented by a project proponent in support of its position. *Berkeley Jets*, 91 Cal.App.4th at p. 1355 (quoting *Laurel Heights Improvement Assn.*, 47 Cal.3d at pp. 391, 409 fn. 12) (internal quotations omitted). A clearly inadequate or unsupported study is entitled to no judicial deference. *Id.* Drawing this line and determining whether the EIR complies with CEQA's information disclosure requirements presents a question of law subject to independent review by the courts. *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131. As the court stated in *Berkeley Jets*, prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process. 91 Cal.App.4th at p. 1355 (internal quotations omitted).

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450). The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. *Id.* For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Id.*

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "fair argument" standard under which an EIR must be prepared whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602; *Friends of "B" St.* v. *City of Hayward* (1980) 106 Cal.3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." PRC, § 21151; see *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75; accord *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884. Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. PRC, §§ 21100 (a), 21151; CEQA Guidelines, § 15064 (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the agency must adopt a negative declaration. PRC, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063 (b)(2), 15064(f)(3).

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." PRC, § 21068; CEQA Guidelines, § 15382. A project may have a significant effect on the environment if there is a reasonable probability that it will result in a significant impact. *No Oil, Inc.*, 13 Cal.3d at p. 83 fn. 16; see *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309. If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063(b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrigation Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom*, 202 Cal.App.3d at p. 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR

even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen,* 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491; *Friends of "B" St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064(f)(1).

B. The Project May Have a Significant Impact on Biological Resources

There is substantial evidence the Project will have a significant impact on biological resources. As discussed in further detail in a comment letter from biological resources expert Shawn Smallwood, PhD with regards to the proposed Project, incorporated by reference herein, "the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, interference with wildlife movement, and wildlife-automobile collision mortality." (See **Exhibit D** [December 12, 2023 comment letter from Shawn Smallwood, PhD regarding SMP 38, SMP 39, and SMP 40 biological resources analysis].)

First, for example, with regards to the potential for habitat loss, Dr. Smallwood predicts:

> SMP 38 (111.7 acres), SMP 39 (51.9 acres) and SMP 40 (41 acres) support 11.4 bird nests/acre/year. Based on this assumption, the combined projects, SMP 39 and SMP 40, on 92.9 acres would eliminate 1,059 nest sites, and assuming SMP 38 is also later developed, then the combined projects, SMP 38, SMP 39, ad SMP 40, on 204.6 would eliminate 2,332 nest sites.

(**Exhibit D**, p. 28.)

Accordingly, Dr. Smallwood points out that this loss in nest sites would constitute a significant impact from the Project that was not quantitatively addressed in the Draft EIR. (**Exhibit D**, p. 28.) Further, Dr. Smallwood notes that the loss in nests would lead to a loss in the reproductive capacity of the site, thus decreasing the number of birds at the Site over time. (*Id.*)

Second, Dr. Smallwood discusses the Projects impacts on interference with wildlife movement, highlighting that the DEIR's analysis of whether the Project will interfere with wildlife movement in the Project Site area is "flawed and misleading." (**Exhibit D**, p. 29.) Specifically, Dr. Smallwood states that:

> According to the DEIR, "The project area does not fall within an Essential Habitat Connectivity area mapped by the CDFW." However, at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18486, the California Essential Habitat Connectivity Project specifically points out that it is not: "A California Department of Fish and Game or US Fish and Wildlife Service response to potential impacts to a habitat or species from a project subject to the California Environmental Quality Act (CEQA)," nor "Fine scale, with every important piece of habitat identified" nor ""Essential", meaning the only places of importance" nor "A solution by itself for how to provide necessary linkages for any given species of plant or animal... Linkage designs will vary depending on focal species chosen and the goal of providing connected habitat for a chosen species might be met several different ways" nor "The final word on connectivity for California." With analytical grid cells of 2,000 acres, the spatial grain of the California Essential Habitat Connectivity Project is much too coarse for the conclusion the DEIR draws from it.

(**Exhibit D**, p. 29.)

Moreover, Dr. Smallwood points out that the DEIR contains a flawed "argument that SMP 39 is cut off from open areas by well-trafficked roads, the airport, the gravel quarries, and therefore cannot function as a wildlife movement corridor" and notes that the same argument is used for SMP 40. (*Id.*) However, as Dr. Smallwood notes, the DEIR simply uses speculation here and provides no supporting evidence to this assertion. (*Id.*)

Third, Dr. Smallwood discusses the Project's traffic impacts to wildlife, noting that traffic generated from the Project will endanger wildlife that must cross roads used by traffic getting to and from the Project Site. (**Exhibit D**, p. 30.) Dr. Smallwood discusses traffic-caused wildlife mortality and highlights various traffic mortality numbers collected from a wildlife mortality study performed only eleven (11) miles from the Project Site in the County of Contra Costa. (*Id.*) Dr. Smallwood concludes an analysis should be done on "whether increased traffic generated by the project site would similarly result in local impacts on wildlife." (*Id.* at p. 31.)

In addition, the biological impact analysis of the EIR is legally flawed for the following reasons.

First, the DEIR's biological resources impact analysis relies on multiple inadequate biological field surveys outlined in Appendices D and E of the DEIR prepared by Monk & Associates that are described in insufficient detail.

For example, with regards to the field surveys, the DEIR states that:

> "SMP 39 and SMP 40 were both first surveyed in 2000, with follow-up surveys over the years, including in November 2013, for various development proposals. In addition, a **project-specific field survey** was conducted on SMP 39 on **October 14, 2021**, and on SMP 40 on **June 10, 2019** to record biological resources within the sites, and to assess the likelihood of resource agency regulated areas to be located within the sites. An **additional survey** was conducted for SMP 40 on **June 21, 2019** to flag the Arroyo Mocho's riparian drip line to allow for the project engineers to survey the limits of the riparian vegetation and overlay the area on the project site plan, and **another general survey** of SMP 40 was conducted on **September 10, 2021.**"

DEIR, p. 4.3-24. [Emphasis added.']

However, the DEIR's reliance on these biological resources field surveys is improper for several reasons.

First, the DEIR and its accompanying Appendices D and E leave out crucial information about the site surveys.

In summarizing the various site surveys that occurred in 2013, 2019, and 2021, DEIR Appendix D's Biological Resources Analysis ("**SMP-39 BRA**") states that "[e]ach site survey involved searching all habitats on the site and recording all plant and wildlife species observed. . . ." and that the "evaluation included an examination of the site to determine if there could be potential areas within the project site that would be regulated as waters of the United States and/or State . . ." DEIR Appendix D, p. 2. Thus, the SMP-39 BRA field surveys seem to indicate that visual inspections were done during these site visits. However, SMP-39 BRA is insufficient for numerous reasons as it leaves out crucial information about the site surveys while relying on the surveys to form conclusions about the Project's potential biological resources impacts.

As a preliminary matter, *one* (1) single field survey alone for just the SMP-39 Project Site is insufficient to adequately identify all of the potential habitats and plant and wildlife species occurring within the Project Site, as the site surveys purport to have

looked for. In the City's Final EIR Responses to Comments, Response No. 5-12, the City counters our office's prior comment that "[o]ne single field survey is sufficient to get a baseline description of a project site's pant communities and wildlife habitats and to determine if additional surveys for special-status species are necessary." (FEIR Response to Comments, p. 2-75.) However, as Dr. Smallwood notes in his comment letter on the Project, "[m]ore surveys are needed than my two surveys [sic] to inventory use of the project site by wildlife" (**Exhibit D**, pp. 14-15), that the appropriate detection surveys have not been completed at SMP 39 and SMP 40," (*id.* at p. 17), that "[r]econnaissance surveys for wildlife are not designed to detect special-status species" indicating that protocol-level detection surveys are appropriate but that Monk & Associates did not perform such detection surveys here, thus rendering the Draft EIR's "characterization of the existing environmental setting . . . therefore incomplete and inaccurate." (*Id.* at p. 19.) Therefore, it is clear that the single survey conducted for SMP-39 is inadequate.

Moreover, the SMP-39 BRA does not specify what time of the day the surveys were conducted during, (DEIR Appendix D, p. 2) which, again, leaves open the possibility that certain species, for example, nocturnal species, could present themselves at different times of the day. This is further highlighted in Dr. Smallwood's comment letter, where he notes that:

> For none of the above surveys was there reporting of what time the surveys began, or how long the surveys lasted. No checklist is shared of habitat elements that the biologists might have used during their survey to later crosscheck against documented habitats of each special-status species. No explanation is provided of whether or how animal behavior data or other evidence contributed to the biologist's assessment of the site for its importance to animal movement. It is therefore difficult to assess survey outcomes relative to survey effort and methods.

(**Exhibit D**, p. 16.)

Even further, in one (1) single survey, the surveyor may fail to identify species that would only present themselves during certain times of the *year*. According to the SMP-39 BRA in Appendix D, for example, the most recent surveys were conducted in June 2019 (a summer month) and October 2021 (a fall month), while failing to account for the spring and winter months. DEIR Appendix D, p. 2. However, there may be certain plant or animal species that would not be identifiable to an observer during the summer or fall months but that could nevertheless be present at the

Project Site and be identifiable during other seasons of the year. For example, and as noted by Dr. Smallwood, in response to the DEIR's assertion that no special-status plants were observed during some of the surveys at the Project Sites during various months over the years, Dr. Smallwood responds that this reporting is misleading "because only one of the several surveys was conducted during the plant blooming season. Monk and Associates (2021, 2023) did not meet the minimum standards of [California Department of Fish and Wildlife's ("**CDFW**")] (2018) plant survey guidelines. While the FEIR's Responses to Comments counters our office's prior comments, asserting that the CDFW's survey guidelines cited are guidelines for conducting floristic surveys for rare and endangered or other special-status species, the site surveys still failed to meet the CDFW's minimum plant survey guidelines standards. Thus, new surveys must be conducted that meet these standards.

Therefore, the DEIR's reliance on surveys not in compliance with California Department of Fish and Wildlife's survey guidelines[6] and its misuse of the California Natural Diversity Database ("**CNDD**") resulted in potentially inaccurate determinations. For example, with regards to botanical field surveys, the CDFW's survey guidelines state that such field surveys should be conducted in a way that will maximize the likelihood of identifying special status plants and sensitive natural communities that may be present at a site.[7] Specifically, the guidelines state that "[m]ore than one field visit is usually necessary to adequately capture the floristic diversity of a project area."[8]

For each of the foregoing reasons, the Project may have a significant impact on biological resources. Accordingly, the DEIR's findings as to the Project's biological impacts are not supported with substantial evidence that is of verifiable or credible value and the DEIR must be revised and recirculated to reassess those impacts, including on the wildlife species with potential to occur on the Project Site using protocol-level detection surveys and describing those surveys with sufficient detail.

[6] *See*, California Natural Resources Agency, *Department of Fish and Wildlife Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities, available at* https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline, pp. 4, 5-6, accessed on Oct. 9, 2023), updated on Feb. 3, 2023; *see generally* California Department of Fish and Wildlife California Natural Diversity Database, *available at* https://wildlife.ca.gov/Data/CNDDB/Plants-and-Animals (last visited on Oct. 9, 2023.)

[7] California Natural Resources Agency, *supra*, at p. 4.

[8] *Id.*

C. The Project May Have Significant Noise Impacts.

There is substantial evidence that the Project will have significant traffic impacts. As discussed by Principal Steve Rogers of Steve Rogers Acoustics, "the evaluation of noise impacts during the construction phases is incomplete and contains a significant calculation error." (**Exhibit E**, p. 3 [December 12, 2023 comment letter re City of Livermore SMP 38/SMP 39/SMP 40 Project Review of DEIR Noise Section & Appendices]), fully incorporated herein.

First, as noted by Mr. Rogers for the DEIR's construction noise impacts, the DEIR concludes there will be a less than significant impact for on-site construction, but per the DEIR's analysis, the DEIR fails to adequately support this conclusion for multiple reasons. (**Exhibit E**, p. 2.) For example, the DEIR fails to include SMP 39's construction noise impacts in its section 4.6 analysis. (*Id.*) Second, Mr. Rogers notes that the noise analysis for SMP 40 is incomplete. Specifically,

> The noise impact analysis for construction on the SMP 40 site compares Salter's noise level predictions with instantaneous maximum noise level (Lmax) limits of 70 dBA during the day and 60 dBA at night, which are taken from Policy N-1.5.P3 of the City of Livermore General Plan.
>
> However, these Lmax noise limits are not the only local regulations that would apply to construction noise on the SMP 40 site.
>
> . . .
>
> Similarly, the DEIR does not include an DNL analysis for construction noise from SMP 40 to show that it will be below the 60 dBA exterior noise standard taken from land-use compatibility table (Table 9-7) in the General Plan. This will be particularly important if any construction work is to occur at night.

(**Exhibit E**, pp. 2-3.)

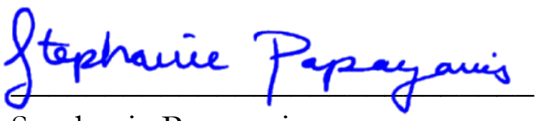
Third, Mr. Rogers highlights that there was an error in the calculations for SMP 40 with regards to various construction equipment pieces at a 50-foot distance. (*Id.*) Lastly, Mr. Rogers states that the construction noise analysis on the east side of the SMP 40 site is overlooked, as it assumes receivers 884 feet away from the equipment, while during other phases of construction, the noisy equipment may be operating closer than 884-feet from nearby residential uses. (*Id.*)

For each of the foregoing reasons, the Project may have a significant noise impact and the EIR should therefore be revised and recirculated.

III. CONCLUSION

Based on the foregoing, the City should deny the Project's proposed entitlements and require that the Environmental Impact Report be revised and recirculated pursuant to CEQA, consistent with the comments and issues identified in this comment letter.

Sincerely,



Stephanie Papayanis
Attorneys for Carpenters Local 713

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B);

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C);

December 12, 2023 Comment Letter from Biological Resources Expert regarding SMP 38, SMP 39, and SMP 40 Project (Exhibit D); and

December 12, 2023 Comment Letter from Noise Expert Steve Rogers regarding Review of DEIR Noise Section an Appendices (Exhibit E).

EXHIBIT A

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

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

ATTACHMENT 3

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6826**	**1,721.6826**	**0.1294**	**0.0000**	**1,724.9187**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6823**	**1,721.6823**	**0.1294**	**0.0000**	**1,724.9183**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4103	1.4103
2	**12-1-2021**	**2-28-2022**	1.3613	1.3613
3	**3-1-2022**	**5-31-2022**	1.1985	1.1985
4	**6-1-2022**	**8-31-2022**	1.1921	1.1921
5	**9-1-2022**	**11-30-2022**	1.1918	1.1918
6	**12-1-2022**	**2-28-2023**	1.0774	1.0774
7	**3-1-2023**	**5-31-2023**	1.0320	1.0320
8	**6-1-2023**	**8-31-2023**	1.0260	1.0260

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	2.8857	2.8857
11	**3-1-2024**	**5-31-2024**	1.6207	1.6207
		Highest	2.8857	2.8857

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6554**	**1,418.6554**	**0.1215**	**0.0000**	**1,421.6925**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6550**	**1,418.6550**	**0.1215**	**0.0000**	**1,421.6921**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4091	1.4091
2	**12-1-2021**	**2-28-2022**	1.3329	1.3329
3	**3-1-2022**	**5-31-2022**	1.1499	1.1499
4	**6-1-2022**	**8-31-2022**	1.1457	1.1457
5	**9-1-2022**	**11-30-2022**	1.1415	1.1415
6	**12-1-2022**	**2-28-2023**	1.0278	1.0278
7	**3-1-2023**	**5-31-2023**	0.9868	0.9868
8	**6-1-2023**	**8-31-2023**	0.9831	0.9831

9	**9-1-2023**	**11-30-2023**	0.9798	0.9798
10	**12-1-2023**	**2-29-2024**	2.8757	2.8757
11	**3-1-2024**	**5-31-2024**	1.6188	1.6188
		Highest	2.8757	2.8757

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

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

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

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Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

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

1640 5th St.., Suite 204 Santa
Santa Monica, California 90401
Tel: (949) 887-9013
Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

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Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Ashley Vera, Senior Planner
City of Livermore
Community Development Department
1052 S. Livermore Avenue
Livermore, CA 94550

12 December 2023

RE: SMP 38, SMP 39. SMP 40

Dear Ms. Vera,

I write to comment on potential impacts to biological resources that could result from the proposed SMP 38, SMP 39. SMP 40 Project, which I understand would add 1,514,275 square feet of floor space in eight speculative industrial buildings up to 55 feet tall on 217.04 acres located on APNs) 904-1-7-21; 904-1-2-12; 904-1-7-32; 904-3-1-4; 904-10-2-2, -3, -5, -7, and -8 west of Isabel Avenue, north of Stanley Boulevard, south of West Jack London Boulevard, and east of El Charro Road. I comment on the analyses of impacts to biological resources in the DEIR and in Monk & Associates (2021).

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, wildlife interactions with the anthrosphere, and conservation of rare and endangered species. I authored many papers on these and other topics. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I've lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-seven years. My CV is attached.

SITE VISIT

I visited the SMP 40 for 2.22 hours from 14:43 to 16:35 hours on 28 November 2023, and SMP 38 and SMP 39 for 2.83 hours from 06:45 to 09:35 hours on 29 November 2023. At SMP 40, I surveyed from a cul-du-sac on the north edge of the site. At SMP 38 and SMP 39, I walked the northern perimeters, stopping to scan for wildlife with use of binoculars. I recorded all species of vertebrate wildlife I detected, including those whose members flew over the sites or were seen nearby, off the sites. Animals of uncertain species identity were either omitted or, if possible, recorded to the Genus or higher taxonomic level.

Conditions were mostly cloudy still with temperatures of 62-55° F on the 28th and 46-50° F on the 29th. The sites have been previously disked, and at the time of the surveys they were covered by annual grasses and ruderal vegetation (Photos 1–2).

Photos 1–2. *Views of SMP 40 (top) and SMP 39 with a flock of Canada goose (bottom), 28-29 November 2023.*

I detected 46 species of vertebrate wildlife at or adjacent to the project site, including 10 species with special status (Table 1). I saw Botta's pocket gopher (Photo 3) and California ground squirrel (Photo 4), both species of which are ecological keystone species. I saw loggerhead shrike (Photo 5), Cooper's hawk and American kestrel (Photos 6 and 7), western meadowlark (Photo 8), house finch and killdeer (Photos 9 and 10), black phoebe and white-crowned sparrow (Photos 11 and 12), mourning dove (Photo 13), Say's phoebe and yellow-rumped warbler (Photos 14 and 15), savannah sparrow (Photo 16), and lesser goldfinch and bushtit (Photos 17 and 18), among the other species listed in Table 1. Many of the species actively foraged on the site, including coyote, Cooper's hawk, red-tailed hawk, horned lark, Canada goose and Aleutian cackling goose, killdeer, western meadowlark, house finch and others. I observed Some species in high abundance, including western meadowlark and mourning dove. California ground squirrels occupied all three sites, but were particularly abundant on SMP 40.

Table 1. *Species of wildlife I observed during 5.05 hours of survey on 28-29 November 2023.*

Common name	***Species name***	**Status[1]**	**Notes**	**SMP**			**Just offsite**
				38	**39**	**40**	
Sierran treefrog	*Pseudacris regilla*		Calling	X	X		
Cackling goose	*Branta hutchinsii*	TWL	Foraging	X	X		X
Canada goose	*Branta canadensis*		Foraging	X	X		X
Mallard	*Anas platyrhynchos*		Flyover	X	X	X	X
Mourning dove	*Zenaida macroura*		Many	X	X	X	X
Killdeer	*Charadrius vociferus*		Foraging	X	X	X	
Short-billed gull	*Larus brachyrhynchus*		Flyover			X	
Ring-billed gull	*Larus delawarensis*		Flyover	X	X	X	
California gull	*Larus californicus*	BCC, TWL	Flyover	X	X	X	
Herring gull	*Larus argentatus*		Flyover			X	
Glaucous-winged gull	*Larus glaucescens*		Flyover		X	X	
Double-crested cormorant	*Nannopterum auritum*	TWL	Flyover		X		X
Great blue heron	*Ardea herodias*		Flyover		X		X
Turkey vulture	*Cathartes aura*	BOP	Foraging		X	X	
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP	SMP 39		X		
Cooper's hawk	*Accipiter cooperii*	TWL, BOP	Perched at airport, foraged project site		X		X
Red-tailed hawk	*Buteo jamaicensis*	BOP		X	X	X	X
Hairy woodpecker	*Dryobates villosus*		Flyover	X			X
Northern flicker	*Colaptes auratus*		SMP 40			X	
American kestrel	*Falco sparverius*	BOP		X	X	X	
Black phoebe	*Sayornis nigricans*			X	X	X	X
Say's phoebe	*Sayornis saya*		SMP 39		X		
Loggerhead shrike	*Lanius ludovicianus*	SSC2	SMP 39		X		
California scrub-jay	*Aphelocoma californica*					X	X
American crow	*Corvus brachyrhynchos*			X	X	X	X
Common raven	*Corvus corax*			X	X	X	X
California horned lark	*Eremophila alpestris actia*	TWL	Foraging			X	
Violet-green swallow	*Tachycineta thalassina*		SMP 40			X	X

Common name	***Species name***	**Status[1]**	**Notes**	**SMP**			**Just offsite**
				38	**39**	**40**	
Bushtit	*Psaltriparus minimus*		Just offsite				X
Northern mockingbird	*Mimus polyglottos*				X	X	X
European starling	*Sturnus vulgaris*	Non-native		X	X	X	X
American pipit	*Anthus rubescens*		Foraging		X		
House finch	*Haemorphous mexicanus*				X	X	X
Lesser goldfinch	*Spinus psaltria*		Just offsite				X
Lawrence's goldfinch	*Spinus lawrencei*	BCC	SMP 40			X	
White-crowned sparrow	*Zonotrichia leucophrys*				X	X	X
Savannah sparrow	*Passerculus sandwichensis*		SMP 38, SMP 39		X		
Lincoln's sparrow	*Melospiza lincolnii*		SMP 38		X		X
California towhee	*Melozone crissalis*				X		X
Western meadowlark	*Sturnella neglecta*		Many	X	X	X	X
Red-winged blackbird	*Agelaius phoeniceus*					X	
Brown-headed cowbird	*Molothrus ater*					X	
Yellow-rumped warbler	*Setophaga coronata*			X	X	X	X
Desert cottontail	*Sylvilagus audubonii*		SMP 38				X
California ground squirrel	*Otospermophilus beecheyi*		Many	X	X	X	X
Coyote	*Canis latrans*		SMP 39		X		
Botta's pocket gopher	*Thomomys bottae*		Burrows		X		X

[1] Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

Photo 3. *Botta's pocket gopher mounds on the project site, 29 November 2023.*

Photo 4. *California ground squirrels on the SMP 40 portion of the project site, 28 November 2023.*

Photo 5. *Loggerhead shrike on the SMP 39 portion of the project site, 29 November 2023.*

Photos 6 and 7. *Cooper's hawk (L) and American kestrel (R) at the project site, 29 November 2023.*

Photo 8. *One of many western meadowlarks foraging on the SMP 39 portion of the project site, 29 November 2023.*

Photos 9 and 10. *House finches (top) and one of many killdeer (bottom) on the project site, 28-29 November 2023.*

Photos 11 and 12. *Black phoebe (L) and white-crowned sparrow (R) on the project site, 28-29 November 2023.*

Photo 13. *One of many mourning doves foraging on the SMP 39 portion of the project site, 29 November 2023.*

Photos 14 and 15. *Say's phoebe (top) and yellow-rumped warbler (bottom) on the project site, 28-29 November 2023.*

Photo 16. *Savannah sparrow on the SMP 39 portion of the project site, 29 November 2023.*

Photos 17 and 18. *Lesser goldfinch (L) and bushtit (R) just off the project site, 29 November 2023.*

I fit nonlinear regression models to the cumulative numbers of vertebrate species I detected with time into my surveys to predict the number of species that I would have detected with a longer survey or perhaps with additional biologists available to assist. The models are logistic growth models which reach asymptotes that correspond with the maximum numbers of vertebrate wildlife species that could have been detected during each survey. In this case, the models predict 46 and 118 species of vertebrate wildlife were available to be detected on the evening of the 28th and the morning of the 29th, respectively, the difference likely due to the onset of darkness during the evening survey of the 28th. Compared to models fit to data I collected from 18 other sites in the region between 2019 and 2023, the data from this project site exceeds the upper bound of the 95% confidence interval of the rate of accumulated species detections with time into the survey (Figure 1). Importantly, however, the species I detected on November 28-29 composed only a fraction of the species that would occur at the project site over the period of a year or longer. This is because many species are seasonal in their occurrence.

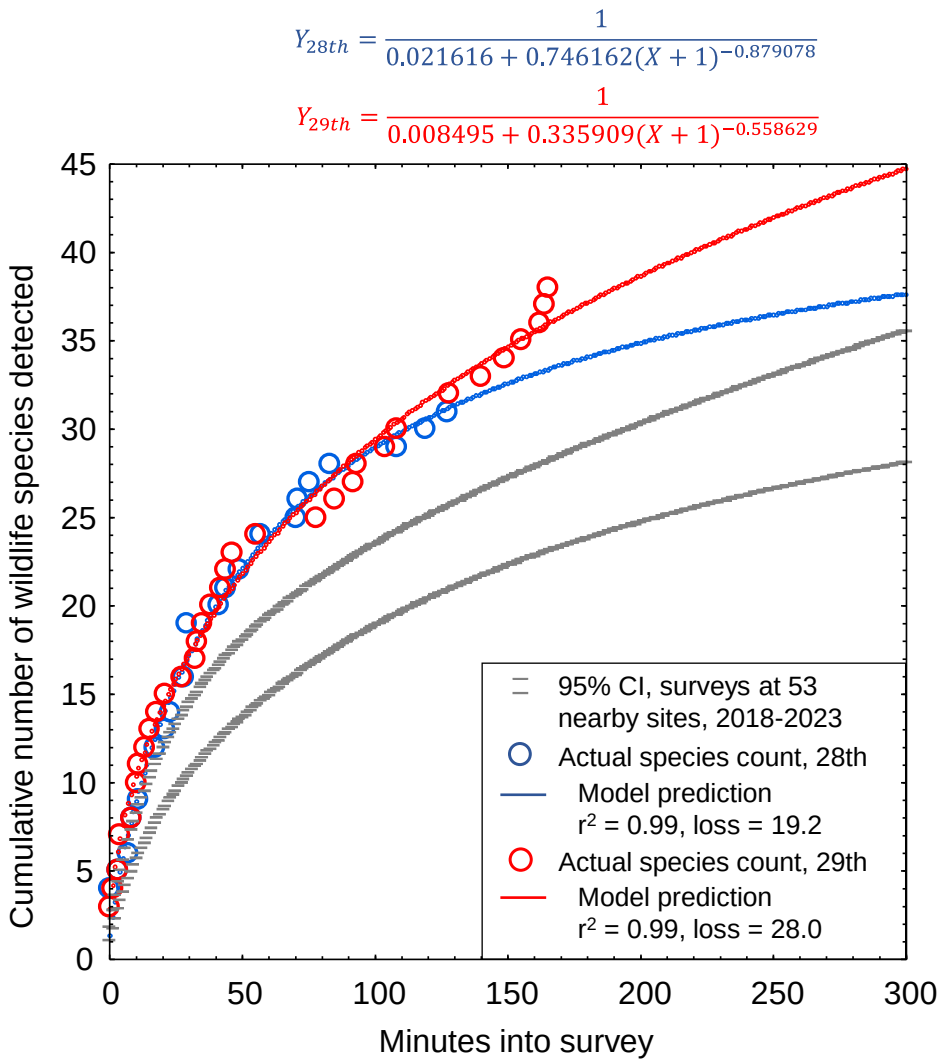

Figure 1. *Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on visual-scan surveys on 28-29 November 2023. Note that the relationships would differ if the surveys were based on another method or during another season.*

At least a year's worth of surveys would be needed to more accurately report the number of vertebrate species that occur at the project site, but I only have Noriko's one survey. However, by use of an analytical bridge, a modeling effort applied to a large, robust data set from a research site can predict the number of vertebrate wildlife species that likely make use of the site over the longer term. As part of my research, I completed a much larger survey effort across 167 km² of annual grasslands of the Altamont Pass Wind Resource Area, where from 2015 through 2019 I performed 721 1-hour visual-scan surveys, or 721 hours of surveys, at 46 stations. I used binoculars and otherwise the methods were the same as the methods I and other consulting biologists use for surveys at proposed project sites. At each of the 46 survey stations, I tallied new species detected with each sequential survey at that station, and then related the cumulative species detected to the hours (number of surveys, as each survey lasted 1 hour) used to accumulate my counts of species detected. I used combined quadratic and simplex methods of estimation in Statistica to estimate least-squares, best-fit nonlinear models of the number of cumulative species detected regressed on hours of survey (number of surveys) at the station: $\hat{R} = \frac{1}{1/a+b\times(Hours)^c}$, where $\hat{R}$ represented cumulative species

richness detected. The coefficients of determination, r^2, of the models ranged 0.88 to 1.00, with a mean of 0.97 (95% CI: 0.96, 0.98); or in other words, the models were excellent fits to the data.

I projected the predictions of each model to thousands of hours to find predicted asymptotes of wildlife species richness. The mean model-predicted asymptote of species richness was 57 after 11,857 hours of visual-scan surveys among the 46 stations of my research site. I also averaged model predictions of species richness at each incremental increase of number of surveys, i.e., number of hours (Figure 2). On average I would have detected 17.5 species over my first 5.05 hours of surveys at my research site in the Altamont Pass (5.05 hours to match the 5.05 hours I surveyed at the project site), which composed 30.7% of the predicted total number of species I would detect with a much larger survey effort at the research site. Given the example illustrated in Figure 2, the 46 species I detected after my 5.05 hours of survey at the project site likely represented 30.7% of the species to be detected after many more visual-scan surveys over another year or longer. With many more repeat surveys through the year, I would likely detect $^{46}/_{0.307} = 150$ species of vertebrate wildlife at the site. Assuming my ratio of special-status to non-special-status species was to hold through the detections of all 150 predicted species, then continued surveys would eventually detect 33 special-status species of vertebrate wildlife.

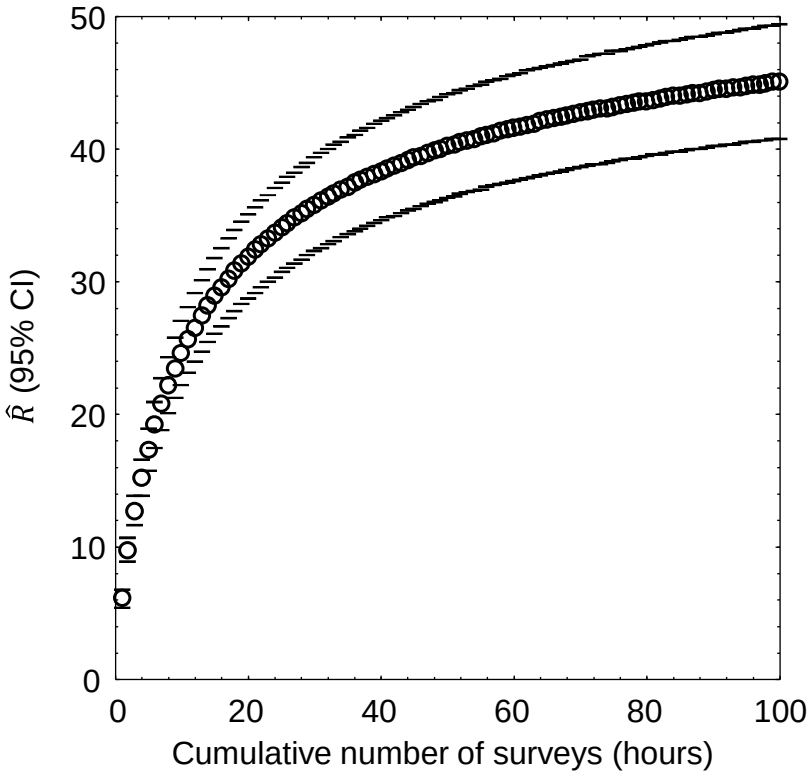

Figure 2. *Mean (95% CI) predicted wildlife species richness, $\hat{R}$, as a nonlinear function of hour-long survey increments across 46 visual-scan survey stations across the Altamont Pass Wind Resource Area, Alameda and Contra Costa Counties, 2015–2019. Note that the location of the study is largely irrelevant to the utility of the graph to the interpretation of survey outcomes at the project site. It is the pattern in the data that is relevant, because the pattern is typical of the pattern seen elsewhere.*

Because my prediction of 150 species of vertebrate wildlife, including 33 special-status species of vertebrate wildlife, is derived from daytime visual-scan surveys, and would detect few nocturnal mammals such as bats, the true number of species composing the wildlife community of the site must be larger. My reconnaissance surveys should serve

only as a starting point toward characterization of the site's wildlife community, but they certainly cannot alone inform of the inventory of species that use the site. More surveys are needed than my two survey to inventory use of the project site by wildlife. Nevertheless, the large number of species I predict at the project site is indicative of a relatively species-rich wildlife community that warrants a serious survey effort.

EXISTING ENVIRNMENTAL SETTING

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the biological species that use the site, their relative abundances, how they use the site, key ecological relationships, and known and ongoing threats to those species with special status. A reasonably accurate characterization of the environmental setting can provide the basis for determining whether the site holds habitat value to wildlife, as well as a baseline against which to analyze potential project impacts. For these reasons, characterization of the environmental setting, including the project site's regional setting, is one of CEQA's essential analytical steps. Methods to achieve this first step typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases and local experts for documented occurrences of special-status species. In the case of the proposed project, these needed steps have been inadequate.

Environmental Setting informed by Field Surveys

To CEQA's primary objective to disclose potential environmental impacts of a proposed project, the analysis should be informed of which biological species are known to occur at the proposed project site, which special-status species are likely to occur, as well as the limitations of the survey effort directed to the site. Analysts need this information to characterize the environmental setting as a basis for opining on, or predicting, potential project impacts to biological resources.

Herein I discuss several types of surveys, which are common to environmental review, but which are often misunderstood and misapplied. A ***reconnaissance survey***, also often referred to as a general biological survey, is intended to (1) detect as many of the species as feasible during the time of the survey, (2) search for and map the locations of approximate boundaries of wetlands and coarse representations of vegetation cover, and (3) assess the likelihood of occurrences of special-status species. The latter objective is often referred to as habitat assessment. CDFW (2018) provides guidelines for reconnaissance surveys directed toward plant species, but there are no guidelines for reconnaissance-level wildlife surveys, other than the expected use of sound scientific methodology. A ***protocol-level survey*** is a survey guided by a written protocol, usually by a resource agency or professional group of biologists. Such surveys can be for various objectives, but in environmental review they are usually intended for detection surveys. ***Detection surveys*** are formulated by experts on a particular species to, at reasonable cost, give survey personnel the best chance at detecting members of a species if the species is indeed present. The additional purpose of detection surveys is to support absence determinations when the protocol was followed but the species was nevertheless not detected. Absence determinations made for special-status species are

supportable only if the results of detection surveys were negative, or when the site is outside the species' geographic range or clearly does not provide habitat.

Preconstruction surveys are take-avoidance surveys intended to be completed after reconnaissance surveys and detection surveys and just prior to construction ground-disturbance activities such as clearing and grubbing or grading. For some species, protocols for preconstruction surveys are included in mitigation guidelines. The preconstruction survey is a mitigation measure, and therefore not to be confused with other types of surveys. This type of survey will be discussed in the Mitigation section near the end of my comments.

Monk & Associates (2021) performed a reconnaissance survey of the SMP 39 project site on 5 November 2021 "to record biological resources and to assess the likelihood of resource agency regulated areas occurring on the project site," and "searching all habitats on the site and recording all plant and wildlife species observed," and "examination of the site to determine if there could be potential areas within the project site that would be regulated as waters of the United States and/or State." Monk & Associates (2023) performed two reconnaissance surveys of the SMP 40 project site on 10 June 2019 and 10 September 2021. The objectives of the surveys at SMP 40 were essentially the same as those for the survey of SMP 39. In all three of these surveys, Monk & Associates recorded all the species observed. A wetland delineation was alco completed at SMP 40.

For none of the above surveys was there reporting of what time the surveys began, or how long the surveys lasted. No checklist is shared of habitat elements that the biologists might have used during their survey to later crosscheck against documented habitats of each special-status species. No explanation is provided of whether or how animal behavior data or other evidence contributed to the biologist's assessment of the site for its importance to animal movement. It is therefore difficult to assess survey outcomes relative to survey effort and methods.

Monk & Associates (2021) detected 14 species of vertebrate wildlife on SMP 39, and Monk & Associates (2023) detected 22 species of vertebrate wildlife on SMP 40. In comparison, and even though I was unable to access either of the project sites, I detected 34 species in only 1.83 hours at SMP 39, and 29 species in only 2.22 hours at SMP 40. I also detected twice the number of special-status species at SMP 39 and 1.5 times the number of special-status species at SMP 40. Based on my surveys of the project sites, the existing environmental setting of each appears substantially different from the setting characterized by Monk & Associates (2021, 2023). Considering the differences between what Monk & Associates and what I found, I suggest that Monk & Associates must have either been distracted by other too many survey objectives, or lacked the skill needed to perform the surveys. The results of the Monk and Associates (2021, 2023) surveys have been misinterpreted in the reports, resulting in inaccurate characterizations of the existing environmental settings of SMP 39 and SMP 40.

Combining my survey results with those of Monk & Associates (2021, 2023), 38 species of vertebrate wildlife have been detected at SMP 39, and 44 species have been detected

at SMP 40. These combined results increase the documented number of species at SMP 39 by nearly 3-fold and they double the number of species at SMP 40. In other words, the combined survey outcomes support my modeling predictions of much larger numbers of species of wildlife making use of the project sites than can be demonstrated by one or two reconnaissance surveys. My modeling predicts at least 150 species of vertebrate wildlife make use of the two sites, and this prediction was based solely on diurnal visual-scan surveys, and not on live-trapping for small mammals and nocturnal surveys for nocturnally active animals. The wildlife communities of SMP 39 and SMP 40 are much richer than portrayed in the DEIR.

The DEIR (page 4.3-25) reports that "western burrowing owls have not been observed within SMP 39 or SMP 40." This is factually incorrect, as CNDDB includes a record of burrowing owl occurrence on SMP 39 (Monk & Associates 2023: Figure 4). Even if this reporting was correct, it would still qualify as pseudoscientific. The appropriate surveys for detecting burrowing owls are detailed in the survey guidelines of CDFW (2012). Lack of detections of burrowing owls during reconnaissance surveys would be meaningful only after completion of many reconnaissance surveys at the appropriate time of year and by qualified biologists. Considering that ground squirrels occur in abundance on SMP 39 and SMP 40, and considering that one of California's most significant populations of burrowing owls occurs within the nearby Altamont Pass (Smallwood et al. 2013), and considering that the appropriate detection surveys have not been completed at SMP 39 and SMP 40, it would be prudent to assume that burrowing owls occur on the project sites.

Regarding tricolored blackbird, the DEIR (page 4.3-26) reports that "the species has not been observed near SMP 39 in nearly 40 years." This is factually incorrect, as eBird includes a 2003 record of tricolored blackbird occurrence only 300 m north of SMP 39. The DEIR also reports that tricolored blackbird would not occur on SMP 9 because "aquatic habitat does not exist within SMP 39." But this is also factually incorrect. I have many times recorded tricolored blackbird occurrences on grasslands of the Altamont Pass far from bodies of water (Photos 19 and 20). Grassland environments is where tricolored blackbirds do most of their foraging in Alameda County, and it is where they sometimes nest within the Altamont Pass (Photo 20).

The DEIR reports that loggerhead shrikes do not occur on SMP 39. But again, the DEIR is factually inaccurate. I observed a loggerhead shrike on SMP 39 (Photo 21), which as it turned out, was near where a loggerhead shrike sighting was also reported to eBird in 2018. Loggerhead shrike does occur on SMP 39, as well as on SMP 40.

The DEIR reports that SMP 39 and SMP 40 contains potential habitat of raptors. However, the word "potential" insinuates uncertainty remains on the question of whether the sites provide raptor habitat. Of course, they do. Those portions of the environment used by raptors are considered raptor habitat. Between my surveys and those of Monk & Associates, and including CNDDB and eBird records, the following raptors have been seen on SMP 39 and SMP 40: turkey vulture, northern harrier, white-tailed kite, red-tailed hawk, ferruginous hawk, Cooper's hawk, American kestrel, merlin,

and burrowing owl. There should be no ambiguity around the question of whether raptor habitat occurs on SMP 39 and SMP 40; raptor habitat is present.

Photos 19 and 20. *Top, tricolored blackbirds forage on grassland far from aquatic environments, and bottom, they breed on rapeseed and thistle in the Altamont Pass Wind Resource Area.*

Photo 21. *Loggerhead shrike on the SMP 39 portion of the project site, 29 November 2023.*

Reconnaissance surveys for wildlife are not designed to detect special-status species. Special-status species can be detected during such surveys, as has been the case for 10 special-status species at the project site, but these surveys are not formulated to detect them, nor are there minimum standards to be met in these surveys to support absence determinations. For the latter purpose, protocol-level detection surveys have been formulated by species experts. Monk & Associates (2021, 2023) did not perform any detection surveys. Based on Monk & Associates (2021, 2023), the DEIR's characterization of the existing environmental setting is therefore incomplete and inaccurate.

The same is true for special-status species of plants. According to the DEIR (page 4.3-25), "special-status plants have not been observed during several surveys of the project sites conducted during various months over the years." However, this reporting is misleading, because only one of the several surveys was conducted during the plant blooming season. Monk and Associates (2021, 2023) did not meet the minimum standards of CDFW's (2018) plant survey guidelines.

Environmental Setting informed by Desktop Review

The purpose of literature and database review and of consulting with local experts is to inform the field survey, and to augment interpretation of its outcome. Analysts need this information to identify which species are known to have occurred at or near the project site, and to identify which other special-status species could conceivably occur at the site due to geographic range overlap and migration flight paths.

Monk & Associates (2021) did not reportedly review eBird (https://eBird.org) or iNaturalist (https://www.inaturalist.org) for documented occurrence records at or near the project site. Instead, Monk & Associates (2021, 2023) queried the California Natural Diversity Data Base (CNDDB) for documented occurrences of special-status species within the three miles of the project sites. By taking this approach, Monk & Associates (2021, 2023) and the DEIR screen out many special-status species from further consideration in the characterization of the wildlife community as part of the existing environmental setting. CNDDB is not designed to support absence determinations or to screen out species from characterization of a site's wildlife community. As noted by CNDDB, "*The CNDDB is a positive sighting database. It does not predict where something may be found. We map occurrences only where we have documentation that the species was found at the site. There are many areas of the state where no surveys have been conducted and therefore there is nothing on the map. That does not mean that there are no special status species present*." Monk & Associates (2021, 2023) and the DEIR misuse CNDDB.

According to Monk & Associates (2021:6), "No special-status animal records have ever been mapped on the project site." The word "ever" adds emphasis to the finding. However, by implication, Monk & Associates (2021) misrepresents CNDDB as a database with uniform representation of California properties, which is far from the case. CNDDB relies entirely on volunteer reporting from biologists who were allowed access to whatever properties they report from. Many properties have never been surveyed by biologists. Many properties have been surveyed, but the survey outcomes never reported to CNDDB. Many properties have been surveyed multiple times, but not all survey outcomes reported to CNDDB. Furthermore, CNDDB is interested only in the findings of special-status species, which means that species more recently assigned special status will have been reported many fewer times to CNDDB than were species assigned special status since the inception of CNDDB. The lack of many CNDDB records for species recently assigned special status had nothing to do with whether the species' geographic ranges overlapped the project site, but rather more to do with the brief time for records to have accumulated since the species were assigned special status. And because negative findings are not reported to CNDDB, CNDDB cannot provide the basis for estimating occurrence likelihoods, either.

In my assessment based on database reviews and site visits, 128 special-status species of wildlife are known to occur near enough to the site (SMP 38, SMP 39, SMP 40) to warrant analysis of occurrence potential (Table 2). Of these 128 species, 19 (15%) were recorded on the project site, and another 35 (27%) species have been documented within 1.5 miles of the site ('Very close'), another 13 (10%) within 1.5 and 4 miles

('Nearby'), and another 57 (45%) within 4 to 30 miles ('In region'). More than half (52%) of the species in Table 2 have been reportedly seen within 4 miles of the project site. The site therefore supports multiple special-status species of wildlife and carries the potential for supporting many more special-status species of wildlife based on proximity of recorded occurrences. The site is far richer in special-status species than is characterized in the DEIR.

Whereas Monk & Associates (2021, 2023) reportedly queried CNDDB for occurrence records within three miles of the project sites, the DEIR analyzes the occurrence likelihoods of only 6 (<5%) of the species in Table 2. That only 6 special-status species were identified from occurrence records within 3 miles strains credulity. As noted above, using eBird and iNaturalist, I found records of 54 special-status species of wildlife within only 1.5 miles of the project sites, and 67 within 4 miles of the sites.

Of the 6 species included in Monk & Associates (2021, 2023) analyses of occurrence likelihoods, the DEIR concludes that 4 have no chance of occurrence, 1 has low to no chance, and 1 has low to moderate chance of occurrence. Except for species whose habitat is compellingly absent from the site, absence determinations are inappropriate based on the evidence gathered by Monk & Associates (2021, 2023). Absence determinations are supportable only after species-specific protocol-level detection surveys have been completed to the standards of the protocols, and the species were nevertheless not detected. No such surveys have been completed. It is inappropriate to conclude that a species is absent simply by looking at a site, and it is especially inappropriate to do so for 125 species of wildlife. Important findings of Monk & Associates (2021, 2023) and the DEIR are not supportable.

Of the special-status species that Monk & Associates (2021, 2023)) claims to be absent from one or both of the project sites, two – burrowing owl and loggerhead shrike – have been seen where they were reported to be absent. Occurrence records of another 2 supposedly absent special-status species have been reported within only 1.5 miles of the site, and another has been reported within 1.5 and 4 miles of the project site. Important findings of Monk & Associates (2021, 2023) and the DEIR are not supportable.

Of the 122 special-status species in Table 2, but which the DEIR does not analyze for occurrence potential, some are unlikely to occur, whereas many *are* likely to occur. With ground squirrels known to be present on SMP 39 and SMP 40, there is reason to expect the occurrences of American badger, ferruginous hawk, bald eagle and golden eagle. I regularly observed these species in the Altamont Pass Wind Resource Areas while I performed various studies there from 1999 through 2019. Golden eagles, I continue to record both in the Altamont Pass and over and on the project sites (Figure 3). Of the 45 golden eagles that Douglas Bell captured and fit with GPS telemetry backpacks since 2013, 11 have flown to or perched in the areas of the project sites (Figure 3).

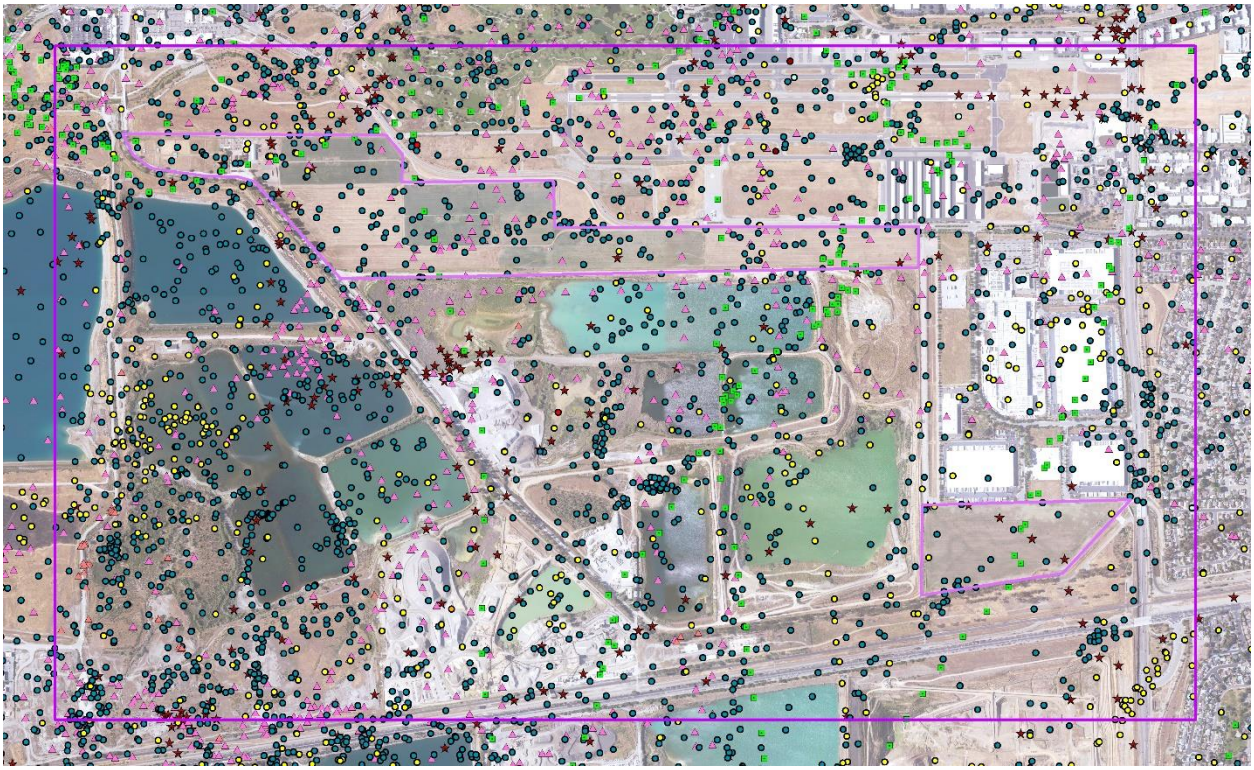

Figure 3. *GPS telemetry positions (N = 3,478) of 11 golden eagles from 2014 through 2023, each distinct color-symbol combination representative of one golden eagle. Many of the positions are on SMP 38, SMP 39, and SMP 40. Many of the positions are of flying golden eagles, and some are of perched golden eagles.*

Considering the inaccuracies of the DEIR's characterization of the existing environmental setting, the reasonable course of action would be to withdraw the current draft EUIR and prepare a new one to appropriately characterize the existing environmental setting. The public needs to understand the nature of the sensitive biological assets that exist on the project sites.

Table 2. *Occurrence likelihoods of special-status bird species at or near the proposed project site, according to eBird/iNaturalist records (https://eBird.org, https://www.inaturalist.org) and on-site survey findings, where 'Very close' indicates within 1.5 miles of the site, "nearby" indicates within 1.5 and 4 miles, and "in region" indicates within 4 and 30 miles, and 'in range' means the species' geographic range overlaps the site. Entries in bold font indicate those species I detected during my reconnaissance surveys.*

Common name	***Species name***	**Status[1]**	**DEIR occurrence potential**	**Data base records, Site visits**
Longhorn fairy shrimp	*Branchinecta longiantenna*	FE		In region
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT		In region
Vernal pool tadpole shrimp	*Lepidurus packardi*	FE		In region
Monarch	*Danaus plexippus*	FC		Very close
Crotch's bumble bee	*Bombus crotchii*	CCE		In region
California tiger salamander	*Ambystoma californiense*	FT, CT, WL	None	Nearby
Foothill yellow-legged frog	*Rana boylii*	CT, SSC		In region
California red-legged frog	*Rana draytonii*	FT, SSC	None	Nearby
Western pond turtle	*Emys marmorata*	SSC	None	Very close
Blainville's horned lizard	*Phrynosoma blainvillii*	SSC		In region
Northern California legless lizard	*Anniella pulchra*	SSC		In region
California glossy snake	*Arizona elegans occidentalis*	SSC		In region
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	SSC		In region
Alameda whipsnake	*Coluber lateralis euryxanthus*	FT, CT		In region
Brant	*Branta bernicla*	SSC2		In region
Cackling goose (Aleutian)	*Branta hutchinsii leucopareia*	WL		**On site**
Redhead	*Aythya americana*	SSC2		Very close
Harlequin duck	*Histrionicus histrionicus*	SSC2		In region
Barrow's goldeneye	*Bucephala islandica*	SSC		Very close
Western grebe	*Aechmophorus occidentalis*	BCC		Very close
Clark's grebe	*Aechmophorus clarkii*	BCC		Very close
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT, CE, BCC		In region
Black swift	*Cypseloides niger*	SSC3, BCC		In region
Vaux's swift	*Chaetura vauxi*	SSC2, BCC		Very close
Costa's hummingbird	*Calypte costae*	BCC		In region
Rufous hummingbird	*Selasphorus rufus*	BCC		Very close

Common name	***Species name***	**Status[1]**	**DEIR occurrence potential**	**Data base records, Site visits**
Allen's hummingbird	*Selasphorus sasin*	BCC		Very close
Ridgway's rail (San Francisco Bay)	*Rallus obsoletus obsoletus*			In region
Yellow rail				In region
Lesser sandhill crane	*Antigone canadensis canadensis*	SSC3		In region
Greater sandhill crane	*Antigone canadensis tabida*	CT, FP		In region
American avocet[4]	*Recurvirostra americana*	BCC		Very close
Mountain plover	*Charadrius montanus*	SSC2, BCC		In region
Snowy plover	*Charadrius nivosus*	BCC		In region
Western snowy plover	*Charadrius nivosus nivosus*	FT, SSC, BCC		In region
Whimbrel[4]	*Numenius phaeopus*	BCC		In region
Long-billed curlew	*Numenius americanus*	WL		Very close
Marbled godwit	*Limosa fedoa*	BCC		Very close
Red knot (Pacific)	*Calidris canutus*	BCC		Very close
Short-billed dowitcher	*Limnodromus griseus*	BCC		Nearby
Willet	*Tringa semipalmata*	BCC		Very close
Laughing gull	*Leucophaeus atricilla*	WL		In region
Heermann's gull	*Larus heermanni*	BCC		In region
Western gull	*Larus occidentalis*	BCC		Very close
California gull	*Larus californicus*	BCC, WL		**On site**
California least tern	*Sternula antillarum browni*	FE, CE, FP		In region
Black tern	*Chlidonias niger*	SSC2, BCC		In region
Elegant tern	*Thalasseus elegans*	BCC, WL		Nearby
Black skimmer	*Rynchops niger*	BCC, SSC3		In region
Common loon	*Gavia immer*	SSC		Very close
Brandt's cormorant	*Urile penicillatus*	BCC		Nearby
Double-crested cormorant	*Phalacrocorax auritus*	WL		**On site**
American white pelican	*Pelacanus erythrorhynchos*	SSC1, BCC		Very close
California brown pelican	*Pelecanus occidentalis californicus*	FP		In region
Least bittern	*Ixobrychus exilis*	SSC2		In region

Common name	***Species name***	**Status[1]**	**DEIR occurrence potential**	**Data base records, Site visits**
White-faced ibis	*Plegadis chihi*	WL		Nearby
Turkey vulture	*Cathartes aura*	BOP		**On site**
Osprey	*Pandion haliaetus*	WL, BOP		Very close
White-tailed kite	*Elanus luecurus*	CFP, BOP		On site
Golden eagle	*Aquila chrysaetos*	BGEPA, CFP, BOP, WL		On site
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP		**On site**
Sharp-shinned hawk	*Accipiter striatus*	WL, BOP		Very close
Cooper's hawk	*Accipiter cooperii*	WL, BOP		**On site**
American goshawk	*Accipiter atricapillus*	SSC2, BOP		In region
Bald eagle	*Haliaeetus leucocephalus*	CE, BGEPA		Very close
Red-shouldered hawk	*Buteo lineatus*	BOP		Very close
Swainson's hawk	*Buteo swainsoni*	CT, BOP		Very close
Red-tailed hawk	*Buteo jamaicensis*	BOP		**On site**
Ferruginous hawk	*Buteo regalis*	WL, BOP		On site
Rough-legged hawk	*Buteo lagopus*	BOP		Nearby
Barn owl	*Tyto alba*	BOP		Very close
Western screech-owl	*Megascops kennicotti*	BOP		Very close
Great horned owl	*Bubo virginianus*	BOP		Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2, BOP	Not likely	On site
Long-eared owl	*Asio otus*	BCC, SSC3, BOP		In region
Short-eared owl	*Asia flammeus*	BCC, SSC3, BOP		In region
Lewis's woodpecker	*Melanerpes lewis*	BCC		Very close
Nuttall's woodpecker	*Picoides nuttallii*	BCC		On site
American kestrel	*Falco sparverius*	BOP		**On site**
Merlin	*Falco columbarius*	WL, BOP		On site
Peregrine falcon	*Falco peregrinus*	BOP		Very close
Prairie falcon	*Falco mexicanus*	WL, BOP		Very close
Olive-sided flycatcher	*Contopus cooperi*	BCC, SSC2		Very close
Willow flycatcher	*Empidonax trailii*	CE		Very close

Common name	***Species name***	**Status[1]**	**DEIR occurrence potential**	**Data base records, Site visits**
Vermilion flycatcher	*Pyrocephalus rubinus*	SSC2		Nearby
Loggerhead shrike	*Lanius ludovicianus*	SSC2	Low to moderate	**On site**
Yellow-billed magpie	*Pica nuttalli*	BCC		Very close
Oak titmouse	*Baeolophus inornatus*	BCC		On site
California horned lark	*Eremophila alpestris actia*	WL		**On site**
Bank swallow	*Riparia riparia*	CT		In region
Purple martin	*Progne subis*	SSC2		In region
Wrentit	*Chamaea fasciata*	BCC		Very close
California thrasher	*Toxostoma redivivum*	BCC		Very close
Cassin's finch	*Haemorhous cassinii*	BCC		In region
Lawrence's goldfinch	*Spinus lawrencei*	BCC		**On site**
Grasshopper sparrow	*Ammodramus savannarum*	SSC2		Nearby
Alameda song sparrow	*Melospiza melodia pusillula*	BCC, SSC2		In region
Black-chinned sparrow	*Spizella atrogularis*	BCC		In region
Gray-headed junco	*Junco hyemalis caniceps*	WL		In region
Bell's sparrow	*Amphispiza b. belli*	WL		In region
Yellow-breasted chat	*Icteria virens*	SSC3		Nearby
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3		Nearby
Bullock's oriole	*Icterus bullockii*	BCC		On site
Tricolored blackbird	*Agelaius tricolor*	CT, BCC, SSC1	Low to none	Very close
Lucy's warbler	*Leiothlypis luciae*	SSC3, BCC		In region
Virginia's warbler	*Leiothlypis virginiae*	WL, BCC		In region
Yellow warbler	*Setophaga petechia*	SSC2		Very close
Summer tanager	*Piranga rubra*	SSC1		In region
Pallid bat	*Antrozous pallidus*	SSC, WBWG:H		In region
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG:H		In region
Canyon bat	*Parastrellus hesperus*	WBWG:L		In region
Big brown bat	*Episticus fuscus*	WBWG:L		In region
Silver-haired bat	*Lasionycteris noctivagans*	WBWG:M		In region
Western red bat	*Lasiurus blossevillii*	SSC, WBWG:H		In region

Common name	***Species name***	**Status[1]**	**DEIR occurrence potential**	**Data base records, Site visits**
Hoary bat	*Lasiurus cinereus*	WBWG:M		In region
Western small-footed myotis	*Myotis cililabrum*	WBWG:M		In range
Miller's myotis	*Myotis evotis*	WBWG:M		In region
Little brown myotis	*Myotis lucifugus*	WBWG:M		In region
Fringed myotis	*Myotis thysanodes*	WBWG:H		In range
Long-legged myotis	*Myotis volans*	WBWG:H		In range
Yuma myotis	*Myotis yumanensis*	WBWG:LM		In region
California myotis	*Myotis californicus*	WBWG:L		In region
Western mastiff bat	*Eumops perotis*	SSC, WBWG:H		In range
Mexican free-tailed bat	*Tadarida brasiliensis*	WBWG:L		In region
San Francisco dusky-footed woodrat	*Neotoma fuscipes annectens*	SSC		In region
Ringtail	*Bassariscus astutus*	CFP		In region
American badger	*Taxidea taxus*	SSC		Nearby
Mountain lion	*Puma concolor*	CCT		Nearby

[1] Listed as FC, FT or FE = federal candidate, threatened or endangered, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, CCT, CCE, CT or CE = California Candidate threatened or endangered, or California threatened or endangered, CFP = California Fully Protected (California Fish and Game Code 3511), SSC = California Species of Special Concern, SSC1, SSC2 and SSC3 = Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), WL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (CFG Code 3503.5), and WBWG = Western Bat Working Group with priority rankings, of low (L), moderate (M), and high (H).

POTENTIAL BIOLOGICAL IMPACTS

An impacts analysis should consider whether and how a proposed project would affect members of a species, larger demographic units of the species, the whole of a species, and ecological communities. The accuracy of this analysis depends on an accurate characterization of the existing environmental setting. In the case of the proposed project, the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, interference with wildlife movement, and wildlife-automobile collision mortality.

HABITAT LOSS

Habitat loss results in a reduced productive capacity of affected wildlife species, but the DEIR offers no prediction of this lost capacity for any of the wildlife species potentially affected. In the case of birds, two methods exist for estimating the loss of productive capacity that would be caused by the project. One method would involve surveys to count the number of bird nests and chicks produced. The alternative method would be to infer productive capacity from estimates of total nest density elsewhere.

Because the project is located within an area that has undergone severe habitat fragmentation, the habitat that remains in fragmented patches probably no longer supports its original productive capacity of wildlife (Smallwood 2015, Smallwood and Smallwood 2023). However, several studies have estimated total avian nest density at locations that had likewise been highly fragmented. Two study sites in grassland/wetland/woodland complexes within agricultural matrices had total bird nesting densities of 32.8 and 35.8 nests per acre (Young 1948, Yahner 1982) for an average 34.3 nests per acre. Assuming total nest density at the project site is about a third of that of the above-cited study sites due to the annual disking of the project site's interior areas, I predict SMP 38 (111.7 acres), SMP 39 (51.9 acres) and SMP 40 (41 acres) support 11.4 bird nests/acre/year. Based on this assumption, the combined projects, SMP 39 and SMP 40, on 92.9 acres would eliminate 1,059 nest sites, and assuming SMP 38 is also later developed, then the combined projects, SMP 38, SMP 39, and SMP 40, on 204.6 would eliminate 2,332 nest sites.

The loss of 1059 to 2,332 nest sites would easily qualify as a significant project impact that has not been quantitatively addressed in the DEIR. But the impact would not end with the immediate loss of nest sites as nest substrate is removed and foraging grounds graded in preparation for impervious surfaces. The reproductive capacity of the site would be lost. The average number of fledglings per nest in Young's (1948) study was 2.9. Assuming Young's (1948) study site typifies bird productivity, the project would prevent the production of 3,071 to 6,763 fledglings per year, depending on whether SMP 38 is developed. Assuming an average bird generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from an equation in Smallwood (2022): {(nests/year × chicks/nest × number of years) + (2 adults/nest × nests/year) × (number of years ÷ years/generation)} ÷ (number of years) = 3,495 to 7,696 birds per year denied to California, depending on whether SMP 38 is developed.

These losses of birds from California would be substantial, nearly equal to the annual loss of birds caused by wind turbine collision mortality in the nearby Altamont Pass Wind Resource Area (Adams Broadwell Joseph & Cardozo 8 January 2021 letter to Alameda County Planning Department regarding Comments on the Draft Subsequent Environmental Impact Report for the Mulqueeney Ranch Wind Repowering Project (SCH No. 2010082063), CUP Application No. PLN2019-00226). These losses would be highly significant.

INTERFERENCE WITH WILDLIFE MOVEMENT

One of CEQA's principal concerns regarding potential project impacts is whether a proposed project would interfere with wildlife movement in the region. Unfortunately, the DEIR's analysis of whether the project would interfere with wildlife movement in the region is flawed and misleading. According to the DEIR, "The project area does not fall within an Essential Habitat Connectivity area mapped by the CDFW." However, at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18486, the California Essential Habitat Connectivity Project specifically points out that it is not: "A California Department of Fish and Game or US Fish and Wildlife Service response to potential impacts to a habitat or species from a project subject to the California Environmental Quality Act (CEQA)," nor "Fine scale, with every important piece of habitat identified" nor ""Essential", meaning the only places of importance" nor "A solution by itself for how to provide necessary linkages for any given species of plant or animal… Linkage designs will vary depending on focal species chosen and the goal of providing connected habitat for a chosen species might be met several different ways" nor "The final word on connectivity for California." With analytical grid cells of 2,000 acres, the spatial grain of the California Essential Habitat Connectivity Project is much too coarse for the conclusion the DEIR draws from it.

The next flaw in the DEIR is in the argument that SMP 39 is cut off from open areas by well-trafficked roads, the airport, the gravel quarries, and therefore cannot function as a wildlife movement corridor. The same argument is made for SMP 40. On this point, the DEIR merely speculates, and offers no supporting evidence to its assertion. Monk & Associates (2021, 2023) report no survey methodology designed to determine whether wildlife rely on the site for movement in the region. They implemented no sampling regime nor a program of observation to record wildlife movement patterns. They failed to quantitatively or qualitatively analyze movement patterns of observed wildlife. Based on what is reported, Monk & Associates (2021, 2023) did not record or measure wildlife movement in any way. The conclusions of the DEIR regarding wildlife movement on the project site are speculative and conclusory.

On the other hand, the coyote I saw on site got there somehow, and so did the ground squirrels and pocket gophers, and so did all of the birds I saw on and over SMP 39. I observed hundreds if not thousands of gulls of multiple species flying in both easterly and westerly directions across SMP 38, SMP 39, and SMP 40. I observed Canada geese and Aleutian cackling geese flying to and from the quarry ponds and the project sites to forage. I saw a Cooper's hawk fly from the airport to SMP 39 to forage, crossing the well-trafficked road in about 2 seconds of flight time. Figure 3 illustrates that our telemetered

golden eagles from the Altamont Pass make frequent visits to the project site. That thousands of our golden eagle telemetry positions appear in the project area is consistent with the pattern that my co-investigators and I have noticed about golden eagle movement across California and beyond to other states and border nations, and that is that golden eagles carefully select open spaces as parts of their travel routes. The project area is important to golden eagle movement in the region, just as it is important to the 10 special-status species I observed on the project site, and to the 19 special-status species so far documented on the project site. Th evidence is overwhelming that the project site is important to wildlife movement in the region. Losing the open space of this site would be devastating to many species of wildlife, including to golden eagle.

Furthermore, whether the site includes or is within a wildlife movement corridor is not the only consideration when it comes to the standard CEQA Checklist question of whether the project would interfere with wildlife movement in the region. The primary phrase of the CEQA standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, a site such as the project site is critically important for wildlife movement because it composes an increasingly diminishing area of open space within a growing expanse of anthropogenic uses, forcing more species of volant wildlife to use the site for stopover and staging during migration, dispersal, and home range patrol (Warnock 2010, Taylor et al. 2011, Runge et al. 2014). The project, due to its elimination of at least 92.9 acres of open space, and more realistically 204.6 acres of open space, and due to its insertion of multiple new buildings into the aerospace currently used by birds, bats and butterflies. would cut wildlife off from one of the last remaining stopover and staging opportunities in the region, forcing volant wildlife to travel even farther between remaining stopover sites. This impact would be significant, and as the project is currently proposed, it would be unmitigated.

TRAFFIC IMPACTS TO WILDLIFE

Project-generated traffic would endanger wildlife that must, for various reasons, cross roads used by the project's traffic to get to and from the project site (Photos 22—26), including along roads far from the project footprint. Vehicle collisions have accounted for the deaths of many thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

The nearest study of traffic-caused wildlife mortality was performed only 11 miles away, along a 2.5-mile stretch of Vasco Road in Contra Costa County, California. Fatality searches in this study found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needs to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality

searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study I completed next to Vasco Road concurrent to the Mendelsohn et al. study (Brown et al. 2016). Brown et al.'s (2016) adjustment factors for carcass persistence resembled those of Santos et al. (2011), which were derived from carcasses placed along roads. Applying searcher detection rates from Brown et al. (2016), the adjusted total number of fatalities was estimated at 12,187 animals killed by traffic on the reach of road that was studied. This fatality number over 1.25 years and 2.5 miles of road translates to 3,900 wild animals per mile per year. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic generated by the project site would similarly result in local impacts on wildlife.

Photo 22. *A Gambel's quail dashes across a road* on *3 April 2021. Such road crossings are usually successful, but too often prove fatal to the animal. Photo by Noriko Smallwood.*

Photo 23. *California ground squirrel in the middle of an eastern Alameda County road on 13 March 2014.*

Photo 24. *Western Pacific rattlesnake on an eastern Alameda County road, 23 August 2011. Photo by Shawn Smallwood.*

Photo 25. *Mourning dove killed by vehicle on a California road. Photo by Noriko Smallwood, 21 June 2020.*

Photo 26 *Raccoon killed on Road 31 just east of Highway 505 in Solano County. Photo taken on 10 November 2018.*

For wildlife vulnerable to front-end collisions and crushing under tires, road mortality can be predicted from the study of Mendelsohn et al. (2009) as a basis, although it would be helpful to have the availability of more studies like that of Mendelsohn et al. (2009) at additional locations. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,900 animals killed per mile along a county road in Contra Costa County. Two percent of the estimated number of fatalities were birds, and the balance was composed of 34% mammals (many mice and pocket mice, but also ground squirrels, desert cottontails, striped skunks, American badgers, raccoons, and others), 52.3% amphibians (large numbers of California tiger salamanders and California red-legged frogs, but also Sierran treefrogs, western toads, arboreal salamanders, slender salamanders and others), and 11.7% reptiles (many western fence lizards, but also skinks, alligator lizards, and snakes of various species). VMT is useful for predicting wildlife mortality because I was able to quantify miles traveled along the studied reach of Vasco Road during the time period of the Mendelsohn et al. (2009), hence enabling a

rate of fatalities per VMT that can be projected to other sites, assuming similar collision fatality rates.

From October 2016 through December 2019, I maintained my own database of wildlife mortality I encountered on Vasco Road between Marsh Creek Road and Livermore, which encompassed the wildlife mortality study site of Mendelsohn et al. (2009). Table 3 includes the wildlife I found as fatalities, and it compares my crudely calculated ratio of observed fatalities per mile. From Table 3, it is apparent that mortality along the reach of road studied by Mendelsohn et al. (2009) was relatively low compared to the rest of Vasco Road: $^{19.178}/_{13.200}$ = 5,667 fatalities per mile predicted for the 14.1 miles of Vasco Road that were not studies by Mendelsohn et al. (2009).

Table 3. *Fatalities I found along Vasco Road from October 2016 though December 2019, and along 14.1 miles of road that was not studied by Mendelsohn et al. (2009) and 2.5 miles that were studied.*

		Observed fatalities		Observed fatalities/mile	
Common name	**Scientific name**	**14.1 miles offsite**	**2.5- mile study site**	**14.1 miles offsite**	**2.5-mile study site**
Alligator lizard	*Elgaria multicarinata*	1		0.068	0.000
American badger	*Taxidea taxus*	3	2	0.205	0.800
American crow	*Corvus brachyrhynchos*	2		0.137	0.000
Barn owl	*Tyto alba*	21	2	1.438	0.800
Bird (Scrub-jay sized)		1		0.068	0.000
Blackbird	*Agelaius*	2		0.137	0.000
Black-tailed jackrabbit	*Lepus californicus*	2		0.137	0.000
Bobcat	*Felis rufus*	2		0.137	0.000
Buffelhead	*Bucephala albeola*	1		0.068	0.000
California kingsnake	*Lampropeltis getula californiae*		1	0.000	0.400
Common poorwill	*Phalaenoptilus nuttallii*	1		0.068	0.000
Coyote	*Canis latrans*	29	2	1.986	0.800
Desert cottontail	*Sylvilagus audubonii*	66	5	4.521	2.000
Gopher snake	*Pituophis c. catenifer*	15	2	1.027	0.800
Ground squirrel	*Otospermophilus beecheyi*	23	3	1.575	1.200
Gull	*Laridae*	1	1	0.068	0.400
Helmeted guineefowl	*Numida meleagris*	3		0.205	0.000
House cat	*Felis catus*	1		0.068	0.000
Kangaroo rat	*Dipodomys*	1		0.068	0.000
Large white bird		1		0.068	0.000
medium-sized bird			1	0.000	0.400

Common name	Scientific name	Observed fatalities		Observed fatalities/mile	
		14.1 miles offsite	2.5- mile study site	14.1 miles offsite	2.5-mile study site
medium-sized mammal		2		0.137	0.000
Mule deer	*Odocoileus hemionus*	5		0.342	0.000
Muskrat	*Ondatra zibethicus*	1		0.068	0.000
Northern harrier	*Circus hudsonicus*	1		0.068	0.000
Osprey	*Pandion haliaetus*	1		0.068	0.000
Pocket gopher	*Thomomys bottae*	1		0.068	0.000
Raccoon	*Procyon lotor*	25	5	1.712	2.000
Western Pacific rattlesnake	*Crotalus oreganus*	2		0.137	0.000
Red fox	*Vulpes vulpes*	1		0.068	0.000
Red-tailed hawk	*Buteo jamaicensis*	5		0.342	0.000
Red-winged blackbird	*Agelaius phoenecius*	1		0.068	0.000
Rock pigeon	*Columba livea*	1		0.068	0.000
Short-eared owl	*Asio flammeus*	1		0.068	0.000
Snake		1		0.068	0.000
Striped skunk	*Mephitis mephitis*	41	9	2.808	3.600
Turkey vulture	*Cathartes aura*	1		0.068	0.000
Virginia opossum	*Didelphis virginiana*	7		0.479	0.000
Western meadowlark	*Sturnella neglecta*	1		0.068	0.000
Wild turkey	*Meleagris gallopavo*	6		0.411	0.000
Total		280	33	19.178	13.200

Predicting project-generated traffic impacts to wildlife

The DEIR predicts the project would generate 8,622,395 annual VMT. During the Mendelsohn et al. (2009) study, 19,500 cars traveled Vasco Road daily, so the vehicle miles that contributed to my estimate of non-volant fatalities was 19,500 cars and trucks × 2.5 miles × 365 days/year × 1.25 years = 22,242,187.5 vehicle miles per 12,187 wildlife fatalities, or 1,825 vehicle miles per fatality. This rate divided into the predicted annual VMT, above, would predict 4,725 vertebrate wildlife fatalities per year. My analysis of data in Table 3 suggests that the project-caused mortality along local roadways would be even higher.

Based on my analysis, the project-generated traffic would cause substantial, significant impacts to wildlife. The DEIR does not address this potential impact, let alone propose to mitigate it. Mitigation measures to improve wildlife safety along roads are available and are feasible, and they need exploration for their suitability with the proposed project. Given the predicted level of project-generated, traffic-caused mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts. The DEIR should be withdrawn

from circulation and revised to appropriately analyze the potential impacts of project-generated automobile traffic on wildlife.

CUMULATIVE IMPACTS

The DEIR attempts to minimalize the project's contributions to cumulative impacts to biological resources by asserting that "ruderal herbaceous land is not considered sensitive wildlife habitat." However, CEQA does not require that the habitat that would be lost to a project be labeled as sensitive; no such standard exists.

The DEIR presents a flawed analysis of cumulative impacts, including to biological resources. The DEIR asserts that it "sets forth mitigation measures to ensure all potential project-specific impacts that would occur to biological resources are reduced to a less-than-significant level." And therefore, "the proposed project would not result in substantial adverse effects to biological resources protected by CEQA." The DEIR contrives the false standard that a given project impact is cumulatively considerable only when it has not been fully mitigated at the project level. The DEIR implies that cumulative impacts are really residual impacts left over by inadequate mitigation of project impacts. This notion of residual impacts being the source of cumulative impacts is inconsistent with CEQA's definition of cumulative effects. Individually mitigated projects do not negate the significance of cumulative impacts. If they did, then CEQA would not require a cumulative effects analysis. To summarize, the DEIR presents no cumulative effects analysis as defined in two ways by CEQA.

MITIGATION

Western Burrowing Owl

4.3-2(a) If project construction begins during the western burrowing owl nesting season (February 15 to August 31), a qualified biologist shall conduct targeted burrowing owl nest surveys within 14 days prior to construction activities using seven- to 20-foot transects. … The survey shall … follow CDFW guidelines outlined in the 2012 Staff Report on Burrowing Owl Mitigation.

The avian breeding season recognized by the CDFW is now 1 February through 15 September. The DEIR should be revised accordingly.

Whereas I concur that preconstruction, take-avoidance surveys should be completed, the DEIR falsely characterizes preconstruction surveys as detection surveys by insinuating that conducting preconstruction surveys without first having completed detection surveys would follow CDFW guidelines. Detection surveys are entirely different than preconstruction surveys, and are implemented to achieve a different set of objectives. Contrary to the DEIR's implication, preconstruction surveys are not designed to detect burrowing owls with anywhere close to the same likelihood as are protocol-level detection surveys that are designed for this purpose. It would be very easy for a preconstruction survey to fail to detect burrowing owls that are in fact present. Therefore, implementing a preconstruction survey as a surrogate for detection surveys would be reckless and would fail to meet the minimum standard of care for wildlife

protection. In any case, preconstruction surveys need to be implemented after completion of detection surveys per CDFW (2012).

Tricolored Blackbird

4.3-2(c) Prior to any ground disturbance on SMP 40, a qualified biologist shall conduct a preconstruction survey in all accessible areas identified as supporting potential tricolored blackbird nesting habitat. The survey shall document the current, and to the extent possible, historical presence or absence of nesting colonies of tricolored blackbird. …

Whereas I concur that preconstruction, take-avoidance surveys should be completed, a detection survey is needed first to inform the readers of the DEIR of whether and where tricolored blackbirds occur on or near the project sites. A detection survey would likely also improve the efficacy of the preconstruction survey.

Nesting Birds and Raptors (Including Loggerhead Shrike)

4.3-2(d) If project construction begins during the nesting season (February 1 to August 31), a qualified biologist shall conduct a nesting bird survey within 7 days prior to construction activities. … If migratory birds are identified nesting on or within the zone of influence, … A qualified biologist shall establish a temporary protective nest buffer around the nest(s). The nest buffer shall be staked with orange construction fencing. The buffer must be of sufficient size to protect the nesting site from construction-related disturbance and shall be established by a qualified ornithologist or biologist with extensive experience working with nesting birds near and on construction sites.

Typically, adequate nesting buffers are 75 feet from the nest site or nest tree dripline for small birds and up to 300 feet for sensitive nesting birds that include several raptor species known in the region of the project site but that are not expected to occur on the project site. Upon completion of nesting surveys, if nesting birds are identified on or within a zone of influence of the project site, a qualified ornithologist/biologist that frequently works with nesting birds shall prescribe adequate nesting buffers to protect the nesting birds from harm while the project is constructed.

First, the avian breeding season recognized by the CDFW is now 1 February through 15 September. The DEIR should be revised accordingly.

Second, whereas I concur that preconstruction, take-avoidance surveys should be completed, in my experience the majority of bird nests would not be found by biologists assigned to the survey. For instance, I surveyed for grassland nesters as part of an intensive survey effort that I performed from March through mid-August 2023 on a Central Valley site. I surveyed the site 30 times. I found that the nests of grassland birds are the most difficult to locate. Cavity nesters can more effectively defend their nests against predators, whereas ground nesters are highly vulnerable to predation, and thus the most cryptic of nesters. Ground nesters, which include bird species that occur at the project site, are highly adept at concealing their nests both physically and behaviorally. Based on my experience, it is highly likely that preconstruction survey would fail to find

any of the nests of ground-nesting birds that truly occur on the project site. The DEIR's implication that preconstruction survey would reduce potential impacts to nesting birds to less-than-significant is unsubstantiated by evidence in the DEIR.

The mitigation measure appears to be specifically directed toward loggerhead shrike, presumably because this special-status species was detected during a reconnaissance survey of SMP 40. Finding the nests of loggerhead shrikes is particularly difficult, as this species is expert at deceiving observers as to the whereabouts of their nests (Smallwood and Smallwood 2021). To adequately survey for nest sites of loggerhead shrike, many surveys are needed, and the survey methods need to include long sessions of visual-scans, preferably from blinds such as automobiles. Observers would need to be experienced in bird behavior, and capable of tracking the movements of individual loggerhead shrikes. A preconstruction survey for loggerhead shrike nest would be ineffective by having inexperienced biologists walk back and forth along transects.

Third, the mitigation language (second italicized paragraph above) allows a single individual to make a subjective decision, outside the public's view, to determine the buffer area for any given species. This measure lacks objective criteria, and is unenforceable.

Even assuming some or even all of the nests would be found and salvaged, this benefit to birds nesting on site would apply only to a single breeding season of nesters. The project would nevertheless eliminate the site's productive capacity to birds.

SMP 40 and Trail Connection Option 2
4.3-3(c) Prior to the commencement of ground-disturbing activities for SMP 40 or Trail Connection Option 2, … [Six minimization and mitigation measures follow, one of which is] *… the riparian corridor of Arroyo Mocho, disturbed areas shall be revegetated with native riparian plant species. Replacement of riparian trees to be removed shall be planted near the creek as feasible and/or adjacent to the existing limits of the riparian corridor to contribute to the existing riparian canopy. Riparian plantings shall be maintained for a minimum of 5 years to ensure that the canopy is enhanced and the understory restored.*

Trail Connection Option 2 – Undercrossing at Isabel Bridge
4.3-3(d) Prior to initiation of any groundbreaking activity associated with Trail Connection Option 2, … The project applicant shall ensure that the proposed project replaces, restores, or enhances on a "no net loss" basis (in accordance with the RWQCB) the acreage of all riparian habitat and waters of the State that would be removed, lost, and/or degraded due to project implementation by methods agreeable to the RWQCB and the City, as appropriate, depending on agency jurisdiction, and as determined during the Section 401 permitting processes. Methods include, but are not limited to implementation of a riparian enhancement planting plan and/or tree planting mitigation at a 1:1 ratio, or as otherwise prescribed by the RWQCB.

Trail Connection Option 2 – Undercrossing at Isabel Bridge

4.3-3(e) If it is determined that work below the OHWM cannot be avoided for Trail Connection Option 2, … Waters that would be lost or disturbed shall be restored, replaced, or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement, including the purchase of credits from a USACE approved mitigation bank at a 1:1 ratio, shall be at a location and by methods acceptable to the USACE.

I concur that all of the measures described above should be implemented if the project goes forward. However, these measure alone would be inadequate. Also needed is monitoring of wildlife that is integrated with thresholds of success and failure. If thresholds of failure are exceeded, then the City should be required to take additional steps to achieve success. To this end, an adequate performance bond should be provided by the applicant to the City.

RECOMMENDED MEASURES

Road Mortality: Compensatory mitigation is needed for the increased wildlife mortality that would be caused by bird-window collisions and the project-generated road traffic in the region. I suggest that this mitigation can be directed toward funding research to identify fatality patterns and effective impact reduction measures such as reduced speed limits and wildlife under-crossings or overcrossings of particularly dangerous road segments. Compensatory mitigation can also be provided in the form of donations to wildlife rehabilitation facilities (see below).

Fund Wildlife Rehabilitation Facilities: Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Many animals would likely be injured by collisions with automobiles traveling to and from the project's buildings.

Landscaping: If the project goes forward, California native plant landscaping (i.e., chaparral, grassland, and locally appropriate scrub plants) should be considered to be used as opposed to landscaping with lawn and exotic shrubs. Native plants offer more structure, cover, food resources, and nesting substrate for wildlife than landscaping with lawn. Native plant landscaping has been shown to increase the abundance of arthropods which act as importance sources of food for wildlife and are crucial for pollination and plant reproduction (Narango et al. 2017, Adams et al. 2020, Smallwood and Wood 2022.). Further, many endangered and threated insects require native host plants for reproduction and migration, e.g., monarch butterfly. Around the world, landscaping with native plants over exotic plants increases the abundance and diversity of birds, and is particularly valuable to native birds (Lerman and Warren 2011, Burghardt et al. 2008, Berthon et al. 2021, Smallwood and Wood 2022). Landscaping with native plants is a way to maintain or to bring back some of the natural habitat and lessen the footprint of urbanization by acting as interconnected patches of habitat for wildlife (Goddard et al. 2009, Tallamy 2020). Lastly, not only does native plant landscaping benefit wildlife, it requires less water and maintenance than traditional landscaping with lawn and hedges.

Thank you for your consideration,

Shawn Smallwood, Ph.D.

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December 12, 2023

Stephanie Papayanis, Esq.
Mitchel M. Tsai, Attorney at Law
139 South Hudson Avenue, Suite 200
Pasadena CA 91101
stephanie@mitchtsailaw.com

Subject: **City of Livermore SMP 38/SMP 39/SMP 40 Project**
Review of DEIR Noise Section & Appendices

Dear Stephanie:

We have completed a review of Section 4.6 (Noise), as well as Appendices J and K (Environmental Noise Assessments) of the Draft Environmental Impact Report for the City of Livermore SMP 38/SMP 39/SMP 40 Project, focusing on the adequacy of the noise impact analyses. Here are our findings:

OVERVIEW

Section 4.6 of the DEIR is based on environmental noise assessments prepared by Salter.

- Significance Standards

  The DEIR significance standards for noise and vibration impacts are based directly on Section XIII of the Environmental Checklist in Appendix G of the current CEQA Guidelines, which reads as follows:

  XIII. NOISE - Would the project result in:

  a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of the local general plan or noise ordinance, or applicable standards of other agencies?

  b) Generation of excessive groundborne vibration or groundborne noise levels?

  c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?

  Salter has proposed a 3 dBA increase in ambient noise levels as the threshold for a "substantial increase". We concur that this is a reasonable value for CEQA evaluation of this project.

- Operational Noise & Construction Vibration

  The analysis in Section 4.6 shows that noise impacts from operational noise (loading dock activity, HVAC, on-site vehicle movements) as well as vibration during on-site construction are less-than-significant. Generally, the analysis supporting this finding appears to be methodical and well done, consistent with current CEQA Guidelines, and we take no exception to it.

- Construction Noise Impacts

  Section 4.6 also includes an analysis of construction noise impacts on the nearest sensitive uses – i.e.: the single-family residential neighborhood to the east of the project sites. This analysis covers on-site construction activity for SMP 40 as well as the construction of off-site trail connections at three potential locations (each within 200-feet of the nearest residential use).

The impact of construction noise on the SMP 39 site is not covered in the DEIR.

For the off-site trail connection construction, the DEIR states that noise impacts are significant without mitigation and provides a list of mitigation measures (4.6-1) to reduce this impact to less-than-significant level. Generally, we agree with this finding and the proposed mitigation measures.

For on-site construction, the DEIR states that noise impacts will be less-than-significant. However, the analysis presented in the DEIR does not – in our opinion – adequately support this conclusion, for the reasons outlined below.

PROBLEMS WITH THE ON-SITE CONSTRUCTION NOISE IMPACT ANALYSIS

- <u>SMP 39 is Excluded</u>

  Construction noise from the SMP 39 site is not included in the analysis in Section 4.6 of the DEIR. An explanation for this omission is provided in the final paragraph on page 4.6-21, which reads in part:

  "Due to the substantial distance between SMP 39 and the sensitive noise receptors, it was anticipated that construction noise associated SMP 39 would be below the City of Livermore's exterior noise level threshold of 60 dBA DNL at the nearest sensitive receptor locations. Thus, construction noise levels for SMP 39 were not evaluated as part of the Environmental Noise Study for SMP 39."

  There are two problems with this explanation:

  First, CEQA requires an actual analysis to show whether a project impact is significant or less-than-significant. Simply "anticipating" that there will be no significant impact falls short of the standard required for a CEQA study.

  Second, the 60 dBA DNL exterior noise standard (which comes from the land-use compatibility table in the Noise Element of the City of Livermore General Plan) is only one of the applicable local regulations. The DEIR analysis should address all applicable regulations in both the General Plan and Municipal Code.

- <u>Analysis for SMP 40 is Incomplete</u>

  The noise impact analysis for construction on the SMP 40 site compares Salter's noise level predictions with instantaneous maximum noise level (Lmax) limits of 70 dBA during the day and 60 dBA at night, which are taken from Policy N-1.5.P3 of the City of Livermore General Plan.

  However, these Lmax noise limits are not the only local regulations that would apply to construction noise on the SMP 40 site.

  For example, the DEIR does not show how construction noise from SMP 40 would compare to Policy N-1.5.P2 of the General Plan, which prescribes the following noise limits, depending on the cumulative duration of the noise:

Daytime Noise Limit (7AM – 10PM)	Nighttime Noise Limit (10PM – 7AM)	Cumulative Duration
60 dBA	50 dBA	No more than 15-minutes in any hour.
65 dBA	55 dBA	No more than 5-minutes in any hour.
70 dBA	60 dBA	No more than 1-minute in any hour.

Similarly, the DEIR does not include an DNL analysis for construction noise from SMP 40 to show that it will be below the 60 dBA exterior noise standard taken from land-use compatibility table (Table 9-7) in the General Plan. This will be particularly important if any construction work is to occur at night.

- <u>There is an Error in the Calculations for SMP 40</u>

  Table 4.6-6 of the DEIR lists estimated Lmax noise levels for various pieces of construction equipment at a distance of 50-feet (these are standard reference values, taken from the FHWA Construction Noise Handbook) and extrapolates them to a distance of 884 feet.

  According to Table 4.6-6, the equipment noise levels received at a distance of 884 are 57 dBA lower than lower than those received at a distance of 50-feet. This is incorrect. According to the radiation equation for point sources (such as individual pieces of construction equipment) the reduction in noise level from 50-feet to 884 feet is:

  $10 \times LOG_{10}(884/50) = 25$ dBA

  So, the estimated Lmax noise levels provided in Table 4.6-6 are 32 dBA lower than they should be. Which means that noise from several of the pieces of equipment listed should be expected to produce a maximum level of noise at the nearest residences that is either right at the 60 dBA nighttime limit or, in the case of paving equipment, 4 dBA above it.

- <u>Construction on the East Side of the SMP 40 Site is Overlooked</u>

  The construction noise analysis in the DEIR for SMP 40 considers assumes receivers 884-feet away from the equipment – which is the distance between the location proposed for Building 2 and the nearest residences. However, there will be certain phases of construction – such as site preparation and paving/landscaping/site concrete – when noisy equipment could be operating closer than 884-feet from nearby residential uses.

  For example, the eastern corner of the SMP 40 site is within 600-feet of the nearest residential use. Received noise levels at a distance of 600-feet from the equipment would be 3 dBA higher than those received at 884-feet, which means that the expected noise level at the nearest residences when paving equipment is in use in the eastern corner of the site would be 67 dBA, Lmax and not 32 dBA, Lmax as reported in Table 4.6-6.

SUMMARY & RECOMMENDATIONS

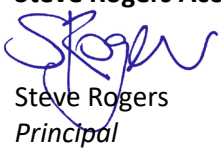
We find that, while much of the noise analysis in the DEIR has been done to the standard expected of a CEQA study, the evaluation of noise impacts during the construction phases is incomplete and contains a significant calculation error. We therefore recommend that the preparers be requested to revise/correct the Noise Section (4.6) of the DEIR as follows:

- Include SMP 39 in the on-site construction noise impact analysis. The analysis should take account of the anticipated number of pieces of equipment in use at any one time during each phase as well as estimated usage factors, so that construction noise impacts can be evaluated in the in the context of the City of Livermore General Plan DNL 60 dBA exterior noise standard (from Table 9-7) and the time-dependent noise limits in Policy N-1.5.P2, as well as the Lmax noise limits in Policy N-1.5.P3.
- For on-site construction on the SMP 40 site, the noise impact analysis should be expanded to take account of the anticipated number of pieces of equipment in use at any one time during each phase as well as estimated usage factors, so that construction noise impacts can be evaluated in the in the

context of the City of Livermore General Plan DNL 60 dBA exterior noise standard (from Table 9-7) and the time-dependent noise limits in Policy N-1.5.P2, as well as the Lmax noise limits in Policy N-1.5.P3.

- Table 4.6-6 should be revised to show the correct (25 dBA) reduction in point-source noise levels from 50-feet to 884-feet.
- Provide additional analysis for any construction activity on the SMP 40 site (such as site preparation, paving/landscaping) that could occur closer than 884-feet from the nearest residential use.

Yours sincerely,
Steve Rogers Acoustics, LLC



Steve Rogers
Principal

Attachment 2
SMP 39 Revised Environmental Noise Study

SMP-39 Site

Livermore, CA

UPDATE TO ENVIRONMENTAL NOISE STUDY

4 March 2024

Prepared for: Timur Tecimer
Overton Moore Properties
19700 S Vermont Avenue Suite #101
Torrance, CA 90502
ttecimer@omprop.com

Jennifer Freedman
Overton Moore Properties
19700 S Vermont Avenue Suite #101
Torrance, CA 90502
jfreedman@omprop.com

Prepared by: Salter
Diego Hernandez – Associate dhernandez@salter-inc.com
Ethan Salter – Vice President esalter@salter-inc.com

Salter Project 23-0142

INTRODUCTION

This report summarizes our environmental noise study of future traffic and loading dock activities from the proposed 6-building warehouse facility along Jack London Boulevard, south of Livermore Airport and west of Discovery Drive in Livermore, California. The purpose of the study was to determine the estimated growth in traffic noise levels resulting in the loading dock trucking activity and if traffic noise impacts from the proposed facility will meet the relevant requirements of the City General Plan Noise Element and Noise Ordinance.

EXECUTIVE SUMMARY

- Noise from the project's loading docks, future intra-project vehicle traffic, and likely HVAC equipment will increase CNEL[1] or DNL[2] noise levels at noise-sensitive receiver locations by 1 dB. An increase of 3 dB or less DNL is not expected to be noticeable and is not considered significant.
- Noise from project-created traffic would not result in a significant increase in noise levels on Jack London Boulevard or Isabel Avenue at adjacent properties.
- Temporary construction noise will be consistent with the City's Noise Ordinance and will not exceed the criteria established by General Plan Noise Objectives N-1.1 and N-1.5.

REPORT ORGANIZATION

This report contains the following sections:

- Project Site
- Acoustical Criteria
- Existing Noise Environment
- Noise Impact Assessment
  - Construction Noise
  - Loading Dock and Intra-Project Traffic Noise (Parking Lot)
  - Tenant HVAC Equipment Noise

[1] Community Noise Equivalent Level (CNEL) – A descriptor for the 24-hour A-weighted average noise level. The CNEL concept accounts for the increased acoustical sensitivity of people to noise during the evening and nighttime hours. Sound levels during the hours from 7 pm to 10 pm are penalized 5 dB; sound levels during the hours from 10 pm to 7 am are penalized 10 dB. A 10-dB increase in sound level is perceived by people to be a doubling of loudness.

[2] Day-Night Average Sound Level (DNL) – A descriptor established by the U.S. Environmental Protection Agency to describe the average day-night level with a penalty applied to noise occurring during the nighttime hours (10 pm - 7 am) to account for the increased sensitivity of people during sleeping hours. Also noted as Ldn. The difference between CNEL and DNL is often less than 1 dB.

PROJECT SITE

The proposed project will have a total lot area of approximately 47.86 acres, located south of West Jack London Boulevard. It is bounded by the Livermore Airport to the north, and Discovery Drive to the east, in the City of Livermore.

There will be six warehouse buildings totaling 2,084,953 square feet with 104 total loading docks. The site is adjacent to existing office and warehouse facilities to the east, approximately 850 feet away. An industrial quarry is located to the south. There are no noise-sensitive residential properties within 2,300 feet of the project site.

ACOUSTICAL CRITERIA

The following are project criteria and/or guidelines for the City of Livermore and State of California.

City of Livermore 2003-2025 General Plan Noise Element

Policy P4, Objective N-1.1

The Noise Element of the Livermore General Plan (Chapter 9, Policy P4 of Objective N-1.1) contains land use compatibility guidelines for environmental noise in the community. Table 1, below, summarizes these guidelines for residential and industrial land uses[3] in terms of CNEL or DNL. The definitions of each land use category follow below the table.

Table 1: Summary of Table 9-7 – Land Use Compatibility Guidelines for Community Noise CNEL or DNL, dB

Land Use Category	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential Low-Density[4], Single-family, Duplex, Mobile Homes	≤60	55-70	70-75	>75
Industrial, Manufacturing, Utilities, Agricultural	≤75	70-80	>75	--

[3] Table 9-7 of the Noise Element, page 9-27.

[4] Per General Plan Noise Ordinance Objective N-1.4, Policy P4, the criterion for single-family residential back yards is 60 dB CNEL/DNL.

Normally Acceptable: *If the noise level is within the "normally acceptable" level, noise exposure would be acceptable for the intended land use. Development may occur without requiring an evaluation of the noise environment unless the use could generate noise impacts on adjacent uses.*

Conditionally Acceptable: *If the noise level is within the "conditionally acceptable" level, noise exposure would be conditionally acceptable; a specified land use may be permitted only after detailed analysis of the noise environment and the project characteristics to determine whether noise insulation or protection features are required. Such noise insulation features may include measures to protect noise-sensitive outdoor activity areas (e.g., at residences, schools, or parks) or may include building sound insulation treatments such as sound-rated windows to protect interior spaces in sensitive receptors.*

Normally Unacceptable: *If the noise level is within the "normally unacceptable" level, analysis and mitigation are required. Development should generally not be undertaken unless adequate noise mitigation options have been analyzed and appropriate mitigations incorporated into the project to reduce the exposure of people to unacceptable noise levels.*

Clearly Unacceptable: *New construction should not be undertaken unless all feasible noise mitigation options have been analyzed and appropriate mitigation incorporated into the project to adequately reduce exposure of people to unacceptable noise levels.*

Noise Element Objective N-1.5

Objective N-1.5 seeks to reduce the level of noise generated by "stationary mechanical and other noise-generating equipment". Policy P1 states that "the City shall require that industrial and commercial uses be designed and operated to avoid the generation of noise effects on surrounding land uses from exceeding the following noise levels for exterior environments, operating longer than half an hour per hour:

- 55 dBA[5] L50[6] (7:00am to 10:00pm)
- 45 dBA L50 (10:00pm to 7:00am)

Policy P2 allows short-term events to have levels louder than those cited above. For events that occur less than 15 minutes per hour, levels can be increased by 5 dBA; events no more than 5 minutes per hour are allowed an additional 10 dBA, and those taking place one minute or less per hour are allowed an additional 15 dBA. Policy P4 allows an exemption from Policy P1 for motor vehicles on public streets between the hours of 7:00am and 8:00pm. We understand that Policies P1, P2, and P4 could apply to the noise from backup alarms (aka "beepers" or "squawkers").

[5] A-Weighted Sound Level – The A-weighted sound pressure level, expressed in decibels (dB). Sometimes the unit of sound level is written as dB(A). A weighting is a standard weighting that accounts for the sensitivity of human hearing to the range of audible frequencies. People perceive a 10 dB increase in sound level to be twice as loud.

[6] L50 – The noise level exceeded 50% of the time. For a discussion of environmental acoustics, please refer to Appendix A.

Objective N-1.5 specifically describes "stationary source noises", so when referring to L_{50} noise levels we analyzed the noise of trucks that are expected to sit in the loading dock area, estimated to be at least 2,395 feet from the nearest residence.

Policy P3 establishes instantaneous maximum noise levels allowed (Lmax[7]) of 70 dBA during the day and 60 dBA during the night.

California Department of Transportation (CalTrans) Construction Vibration Criteria

The California Department of Transportation[8] (DOT) provides vibration guidelines for two scenarios: human perception and construction damage. These tables are included below as guidelines for potential project vibration levels. "Transient" vibrations are classified as impulsive events that are short in duration (e.g., debris falling, blasting). "Continuous" vibrations are more sustained vibration events over longer periods of time (e.g., jackhammering, drilling). Table 2 describes the human response to different levels of ground-borne vibration for transient and continuous events.

Table 2: Guideline Vibration Annoyance Potential Threshold Criteria[9]

Human Response	Maximum PPV[10] (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.00	0.40

Table 3 provides a guideline for vibration criteria to assess the damage potential from ground vibration induced by construction equipment. Thresholds for continuous vibrations are lower than those for transient vibrations and are therefore considered more "conservative". These are standard significance thresholds used in the industry to determine impacts of ground borne vibrations on structures.

7 L_{max} (Maximum Sound Level) – The maximum sound level for a specified measurement period of time as defined in ASTM E1686.

8 Transportation and Construction Vibration Guidance Manual September 2013 (DOT Document).

9 This is Table 20 from the DOT document.

10 (PPV): Peak Particle Velocity.

Table 3: Guideline Vibration Damage Potential Threshold Criteria[11]

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

The immediate adjacent properties are all modern industrial or commercial buildings. Across Isabel Avenue/Highway 84 to the east are existing single-family residences. Based on Table 3, we have applied the more stringent residential criteria of 1.0 PPV for transient events and 0.50 PPV for continuous events.

State of California CEQA Guidelines and Impact Criteria

The California Environmental Quality Act (CEQA) contains guidelines that evaluate the significance of noise attributable to a proposed project. This would include (but is not limited to) added traffic noise, mechanical equipment noise, and construction noise. CEQA asks the following applicable questions. Would the project result in:

1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
2. Generation of excessive ground borne vibration or ground borne noise levels?
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public-use airport, would the project expose people residing or working in the project area to excessive noise levels?

CEQA does not define the noise level increase that is considered "substantial". Typically, the local general plan would establish limits with respect to allowable noise and vibration increases. However, the City of Livermore General Plan does not contain numerical standards of significance for noise increases. For the items above, noise level increases of 3 dBA or less are generally considered less-than-significant. Substantial adverse community response would be expected only for increases of 5 dBA or more.

11 This is Table 19 of the DOT document.

EXISTING NOISE ENVIRONMENT

Project Site Description

To quantify the existing site noise environment, a monitor continuously measured noise levels along Jack London Boulevard on 5 and 10 April 2023. **Table 4** shows a summary of the measured data. **Figure 1**, attached, shows the approximate measurement location.

Table 4: Measured Environmental Noise Levels

Site	Location	DNL (dB)	Leq(h) (dB)
LT-1	Jack London Boulevard, approximately 12-feet above grade	75	76

Site Noise Context

Noise measurements at the project site (see **Figure 1**), collected data from vehicle pass-bys on Jack London Boulevard. The measured on-site noise level was DNL 75 dB (see **Figure 1**). LT-1 was placed on the closest access utility pole across from the future site on Jack London Boulevard. Adjustments were made, as appropriate, to estimate the change in noise levels from the long-term monitor location to the locations of the nearest residences east of Isabel Avenue.

We have combined cumulative existing and future noise sources that would result from the project's completion. Future project sources include the proposed loading dock noise, rooftop HVAC equipment, parking areas, and estimated traffic contribution, while the existing noise sources are the existing traffic. Adding expected noise contribution to the existing noise environment logarithmically would result in a noise level of approximately **DNL 75 dB** from all contributing noise sources upon the project's completion.

DNL **30**[a] dB [HVAC] + DNL **32**[b] dB [employee lot] + DNL **50**[c] dB [trucks] = DNL **50**[d] dB [future noise level at receivers]

a = cumulative building rooftop HVAC noise
b = employee parking lot noise
c = loading dock truck noise

d = cumulative future project sources

DNL **67**[e] dB [existing traffic] + DNL **50**[e] dB [combined future sources] **=** DNL **67**[f] dB [future noise level at receivers]

e = measured at project site, see **Figure 1**
e = determined from loading docks + HVAC noise + parking lots
f = calculated

See **Appendix A** for additional information on decibel mathematics.

NOISE IMPACT ASSESSMENT ANALYSIS

We evaluated the following noise sources from the proposed project on the surrounding environment:

- Potential rooftop mechanical equipment noise
- Short-term construction noise and vibration
- Project-related traffic increases

We have drawn the following conclusions from the analysis:

The following summarizes the portion of the CEQA checklist pertaining to noise.

Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project exceeding standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

A: Permanent Increase in Noise Levels due to Project-Generated Noise

It is anticipated that the potential office spaces located on northern facades of the six buildings will be mechanically ventilated. Based on previous projects of similar design, we have assumed the use of up to four typical 5-ton package rooftop units located above each office (a total of 56 units). No outdoor mechanical equipment has been specified at this time. Specific equipment will be confirmed during the design phase.

Preliminary sound power level data provided from a similarly sized project with similar 5-ton outdoor package fan units indicates that combined noise from these units sums to approximately DNL 30 dB at the nearest property lines, assuming the units operate continuously for 24-hour operation. The rooftop parapet is assumed to provide acoustical shielding to nearby neighbors because they would break line-of-sight to the nearest receivers.

Depending on the final equipment placement, as well as any specific parapets, barriers, and shielding provided by buildings (which would reduce noise levels at the property lines), noise levels may vary. We do not expect the noise contribution to be significant in these aspects.

B: Predicted Permanent Increase in Noise Levels due Project Traffic Volumes

It has been communicated by the team that the projected truck trips per day will be approximately as shown below in Table 5.

Table 5: SMP-39 Truck Trips

Hour	Percent	ITE Trips
7 – 9 AM	10.8%	78
9 AM – 4 PM	61.0%	439
4 – 6 PM	10.8%	78
6 – 10 PM	3.9%	28
10 PM – 7 AM	13.4%	96
Total	100 %	719

Overall, the project would result in a net increase in daily trips by 719, amounting to an overall traffic noise DNL increase of <1 dB. Therefore, this would not result in a significant increase in noise levels at existing adjacent properties.

C: Temporary Increase in Noise Levels due to Construction

Construction activities will likely include the use of heavy equipment for grading and other activities, through completion of buildings and landscaping. Heavy trucks would travel to, from, and within the site hauling soil, equipment, and building materials. Smaller equipment, such as jackhammers, pneumatic tools, and saws could also be used throughout the demolition and construction phases in various areas. The noise and vibration associated with these activities would be generated within the entire project area.

Based on our experience with similar projects' construction methods and phasing, our preliminary understanding and assumptions of expected equipment is shown in Table 6. Reference levels for construction equipment are listed in Table 7, both at the reference distance of 50-feet and at 2,640-feet, which is the distance from eastern edge of the SMP 39 property to the residences across Isabel Avenue.

Table 6: List of Typical Construction Equipment and Phasing

Phase	Equipment
Demolition	Concrete/Industrial Saws, Excavators, Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Site Preparation	Graders, Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Grading/Excavation	Excavators, Drill Rig for Shoring Beams (Caisson Drilling), Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Trenching	Tractor/Loader/Backhoe, Excavators
Building Exterior	Cranes, Forklifts, Generator Sets, Tractors/Loaders/Backhoes, Welders
Building Interior/ Architectural Coating	Air Compressors, Aerial Lift
Paving/Landscaping/ Site Concrete	Cement and Mortar Mixers, Paving Equipment, Rollers, Tractors/Loaders/Backhoes

Table 7: Construction Equipment Reference Noise Levels[12]

Typical Equipment	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 50 feet)	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 2,640 feet)
Aerial Lift	83	49
Air Compressors	81	47
Cement and Mortar Mixers	85	51
Concrete/Industrial Saws	76	42
Cranes	83	49
Drill Rig for Shoring Beams (Caisson Drilling)	85	51
Excavators	85	51
Forklifts	83	49
Generator Sets	81	47
Graders	85	51
Paving Equipment	89	55
Rollers	74	40
Rubber-Tired Dozers	85	51
Tractors/Loaders/Backhoes	84	50
Welders	73	39

Actual construction noise levels will vary based on distance to each piece of equipment or work area from the receiver and shielding from adjacent buildings and construction elements. It should be noted that construction activities are prohibited during the specific time period outlined in Section 9.36.080 of the City's Municipal Code, and our calculations do not take shielding from adjacent buildings into consideration. Section 9.36.080 is as follows:

12 Equipment noise levels at 50-feet are from Section 9, Federal Highway Administration Highway Traffic Noise Construction Noise Handbook (August 2006) and Table 12-2, Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

Section 9.36.080 Hammers, pile drivers, pneumatic tools and similar equipment

The operation between the hours of 6:00 p.m. Saturday to 7:00 a.m. Monday; 8:00 p.m. to 7:00 a.m. on Monday, Tuesday, Wednesday and Thursdays; 8:00 p.m. Friday to 9:00 a.m. on Saturday or at all on city-observed holidays of any pile driver, pneumatic tools, derrick, electric hoist, sandblaster or other equipment used in construction, demolition or other repair work, the use of which is attended by loud or unusual noise, is prohibited. (Ord. 1672 § 2, 2002; Ord. 1128 § 2, 1983; 1960 code § 13B.3(f))

Construction Equipment Schedule

We received the following equipment schedule that CalEEMod utilized for their model for air quality emissions. **Table 8** below summarizes the equipment and associated sound levels at the nearest residential property (approximately 2,640 feet away).

Table 8: Construction Equipment Schedule

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Resulting DNL	Resulting Lmax
Grading	Excavators	2	8	66	54
Grading	Graders	1	8	66	51
Grading	Rubber Tired Dozers	1	8	66	51
Grading	Scrapers	2	8	66	54
Grading	Tractors/Loaders/Backhoes	2	8	66	53
Total Grading Phase	**All Equipment Running Simultaneously**			**67**	**60**
Paving	Pavers	2	8	67	58
Paving	Paving Equipment	2	8	67	58
Paving	Rollers	2	8	66	43
Total Paving Phase	**All Equipment Running Simultaneously**			**67**	**61**
Building Construction	Cranes	1	7	66	49
Building Construction	Forklift	3	8	66	54
Building Construction	Generator Sets	1	8	66	47
Building Construction	Tractors/Loaders/Backhoes	3	7	66	56
Building Construction	Welders	1	8	66	39
Total Building Construction	**All Equipment Running Simultaneously**			**67**	**59**
Architectural Coating	Air Compressors	1	8	66	47

It should be noted that the DNL was calculated using daytime construction noise levels for daytime hours for the listed hours of operation and measured nighttime hours from existing traffic. Despite restrictions of nighttime construction activities, from the noise levels shown above in Table 8, it could be possible to exceed the General Plan Objectives as follows:

Objective N-1.5 P3

- As shown above in Table 8, with all the phases running construction equipment as intended, the resulting Lmax would range between 59 and 61 dBA. Since construction is not permitted during nighttime hours, the Lmax criterion of 70 dBA would be met and not be considered a significant increase.

Due to these results, it will not be necessary to incorporate any mitigation measures for construction noise.

Would the project result in generation of excessive ground-borne vibration or ground-borne noise levels?

A: Permanent Increase in Vibration Levels due to Project-Generated Vibration

The planned use for the site, as warehouse buildings, is not expected to generate significant amounts of ground-borne noise or vibration.

B: Temporary Increase in Vibration Levels due to Construction

The nearest and most sensitive adjacent receivers include residences to the east approximately 500 feet from the closest area of construction on the project site. Industrial-zoned parcels to the north are assumed to be less sensitive.

Project construction may include activities such as the use of concrete saws, excavation and grading, and the use of rolling stock equipment (tracked vehicles, compactors, etc.). Typical construction vibration levels at 50-feet are listed in Table 9, below. Most of the construction will occur set back from the property line. As indicated in the criteria section above, the risk of damage to nearby structures may begin to occur at a limit of 1.0 in/sec PPV for transient vibration events and 0.50 PPV for continuous events.

Table 9: Example Construction Vibration Levels[13]

Equipment	PPV at 50 ft. (in/sec)[14]
Vibratory Roller	0.049
Hydraulic Breaker	0.03 to 0.08
Large Bulldozer	0.03
Loaded Trucks	0.03
Excavator	0.03
Caisson/pier drilling	0.03
Jackhammer	0.01
Small Bulldozer	0.001
Crane, Forklift, Bobcat	No significant vibration

Based on the vibration levels shown in Table 8, construction equipment is not expected to cause structural damage to adjacent properties because project construction is not expected to exceed the thresholds for new residential buildings or commercial/industrial structures as shown above in Table 3. Ground-borne noise would also not be expected to be significant at these vibration levels.

FUTURE LOADING DOCK AND INTRA-PROJECT TRAFFIC NOISE ESTIMATES

Future Loading Dock Calculation Methodology

Operational noise from the proposed facility is expected to consist primarily of tractor-trailers accessing loading dock areas. To estimate truck noise at the proposed facility, we referenced recently measured noise levels at a distribution facility elsewhere in California which involved semi-trucks similar in size to those that are expected to access the proposed project's facility.

Calculations for resulting noise levels due to on-site truck and car trip generation durations and activities were based on the measurements at this local distribution facility with ancillary information provided to us for that reference project in 2018.

Based on the assumptions described below, estimated noise levels were then compared to applicable criteria to determine if noise from the proposed facility would exceed the City's noise goals (described above) at the nearest receivers.

Traffic volumes for the proposed project were referenced from the provided Traffic Impact Analysis document (dated 4 April 2023) by TJKM, which describes the total daily truck trips and the partial

13 Table 12-2, Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

14 Using a value of n = 1.5 per FTA recommendation, where n is the attenuation rate through the ground

distribution over the peak AM and PM hours and the relative expected proportion of project-generated trips using Jack London Boulevard and Isabel Avenue.

Intra-Project Traffic Methodology

Intra-project traffic noise will consist of traffic noise associated with future warehouse employee vehicles within the designated parking lots. To estimate vehicle noise at the employee parking lots, we also reference the Traffic Impact Analysis document for the expected traffic volume of warehouse employees.

Noise Source Analysis and Assumptions

Future Loading Docks

Our analysis estimated future noise from the facility based on the following assumptions discussed with the client via email, and per the overall site plan:

1. Trucks will enter and exit the site from three driveways off West Jackson Boulevard, from the north.
2. Non-truck noises associated with loading/unloading activity (i.e., forklifts, rolling doors, carts, pallet crushing, items dropping), are assumed to be located near the dock doors and are included in our analysis.
3. An average truck trip (not including unloading/loading) is estimated to last for a cumulative period of about 2 minutes and be at least 930 feet from the nearest commercial property line.
4. Trucks occupy the loading dock in their loading area that is nearest to noise-sensitive receiver (Commercial buildings east of Discovery Drive, to the east of the building).
5. Total number of loading docks: 104
6. Number and distribution of truck trips is based on the traffic impact analysis, with approximately 719 total truck trips per 24-hour period (continuous 24/7 operation) distributed as follows:
    - AM Peak is 7-9 AM- 10.8%
    - 9-4 PM -61%
    - PM Peak is 4 PM - 6 PM -10.8%
    - 6 PM - 10 PM 3.9%
    - 10 PM -7 AM 13.4%
7. The proposed warehouse buildings have south-facing loading docks which are recessed approximately 60 feet from the easternmost building's façade, providing substantial shielding for truck operation noise. This feature is expected to obstruct the direct line of sight of the project's loading docks from the commercial neighbors to the east, especially in buildings closer to Discovery Drive.
8. Having measured operations at a local representative loading dock site, a typical truck "trip" consists of the following events (estimated sound levels based on measurements at similar facilities):

a. Truck passby (arrival, departure): 69 dBA at 30 feet
b. Truck airbrakes: 72 dBA at 25 feet
c. Truck backup alarm: 79 dBA at 30 feet
d. Brief idle before engine shutoff: 70 dBA at 25 feet
e. Truck engine ignition and airbrakes: 71 dBA at 25 feet
f. Truck accelerating from stop: 74 dBA at 25 feet
g. Truck trip reference heights[15] (above grade)
    i. Passby, brief idle, acceleration, and ignition: 8 feet
    ii. Back-up beeper and airbrake: 2.5 feet

Intra-Project Traffic Noise

Our analysis estimated future noise from the facility parking lots is based on the following assumptions:

1. Employees will enter and exit the site from the three driveways from the north (via Jack London Boulevard).
2. Vehicle trips will be split between Jack London Boulevard and Isabel Avenue per the TJKM report's traffic projections. Our traffic analysis calculations tell us the following:

- 80% of project generated trips will be along Jack London Boulevard
- 20% of project generated trips will be along Isabel Avenue
- There will be an average noise level increase of approximately 3dB on both roadways due to traffic increases. This increase is not considered to be significant.

3. Once on site, vehicles will travel an average of 15 miles per hour or less.
4. Vehicles will be spread out evenly amongst the parking areas.
5. An average vehicle trip is estimated to last for a cumulative period of about 2 minutes and be at least 900 feet from the nearest commercial property line.
6. Similar percentages were assumed for intra-project vehicle trips in the project parking lots as were truck trips, as shown in the distribution below.

- AM Peak is 7-9 AM- 10.8%
- 9-4 PM -61%
- PM Peak is 4 PM - 6 PM -10.8%
- 6 PM - 10 PM 3.9%
- 10 PM -7 AM 13.4%

[15] Truck source heights excerpted from Caltrans Technical Noise Supplement document (TeNS) document dated October 1998.

Estimated Future Noise Levels

Loading Dock Future Noise Levels (CNEL/DNL)

We estimated noise levels at local receptors from the sources described in the previous section. To account for future increases in local traffic noise levels, we added 1 dB DNL to the measured levels[16] (see Table 4 above).

Table 10 below summarizes the estimated DNL levels at the closest property plane to the east of the building, under the assumption that the facility would receive its trucking activities 24 hours per day.

Table 10: Calculated Future Facility Noise at Noise-Sensitive Land Uses: CNEL/DNL, dBA

Scenario	Nearby Receiving Locations	Existing Noise at Receiver	Loading Docks at Receiver	Intra-Project Traffic Noise Levels at Receiver	Combined Existing plus Project	Change (dB)
24-hour Operations	East Property Line (Residences across Isabel Avenue)	67	61	32	68	+1 dB

The data shows that loading dock-generated noise is not expected to impact adjacent receivers to the north and the residences to the east. The calculated increase in DNL at the nearest property line with the project and future traffic noise levels (near term 2025) will be approximately 1 dB. A change of 3 dB or less is not expected to be noticeable and is not considered significant.

Future L_{50} Noise Levels

The following assumptions were made about the 24-hour operation of the project in our estimated L_{50} calculations:

- The volume of expected truck trips is consistent with the truck trip distribution established in item 6 of the Noise Source Analysis and Assumptions section (i.e., a maximum of 10 truck per hour at nighttime, or 13.4% of trucks between 10:00 pm and 7:00 am).
- The 6- and 10-foot berms will be incorporated into the project.
- Backup alarms are expected to be at a height of approximately 2.5 feet.
- Trucks do not move great distances when their backup alarm is engaged.

[16] The California Department of Transportation assumes a traffic volume increase of three-percent per year, which corresponds to a 1 dB increase in DNL over a ten-year period.

Table 11 summarizes the estimated daytime and nighttime L_{50} for the proposed project. Since backup alarms for nighttime are predicted to occur less than 15 minutes per hour, the criterion can increase by 5 dBA per Policy P2. However, since back up alarms would be more than 15 minutes per hour during the daytime, no additional increases are accounted for in our analysis.

Table 11: Calculated 24-Hour Future Facility L_{50} Value: L_{50}, dBA

Time of Day	Estimated L_{50} Value	Criterion L_{50} Value
Daytime (7am-10pm)	40 dBA	55 dBA
Nighttime (10pm-7am)	35 dBA	50 dBA

Our calculations of overall operational L_{50} noise levels do not exceed the allowable values stated by the City (i.e., Policy P1, Objective N-1.5), it is our understanding that other current similar projects in the vicinity have caused local neighbor complaints due to trucks' back-up alarms at those locations in the past.

Back-up alarms were assumed to be 79 dB at a reference distance of 30 feet. The distance attenuation between the loading dock to the façade of the nearest residence provides a 31 dB reduction. Although backup alarms would be audible from the residences, the L_{50} threshold of 50 dBA will not be exceeded due to the limited number of trips during this timeframe (estimated at 40 trips in 9-hour time frame).

Calculations assumed the source height of these backup alarms to be approximately 2.5 feet from grade. The current buildings would adequately obstruct the direct line-of-sight of these backup alarms to the residential receivers. The dimensions of the proposed berms are calculated to reduce intermittent noise levels (such as those produced by backup alarms) by up to 6 dB at the closest residents.

Quieter backup alarms (aka "squawkers"), which are becoming more prevalent in delivery vehicles for various large e-commerce websites, and other vendors, may be used by trucking operators visiting this site in the future, therefore beeper noise has the potential to be reduced. A best practice for consideration would be to implement these alternative devices in other truck populations in the future.

CONCLUSIONS AND COMMENTS

1. Future loading dock-generated noise (due to on-site trucks and vehicles) over a 24-hour operation period is not expected to impact receivers to the east. The calculated increase in CNEL/DNL at the nearest noise-sensitive residential receivers with the project and future traffic noise levels will be <1 dB. A change of 2 dB or less is not considered significant nor is it expected to be noticeable to residents east of the project site.
2. Temporary construction noise will be consistent with the City's Noise Ordinance and will not exceed the criteria established by General Plan Noise Objectives N-1.1 and N-1.5.

3. Considering the 2,395-foot distance between the nearest loading dock and the closest residents, and the trucks being a stationary source rather than a moving vehicle once the leaving the loading dock area of the project site, the city's L_{50} criterion is not applicable once a truck begins moving closer to the residential area. Given the minority of expected project truck trips conducted in the nighttime hours (10 trips per hour on average from 10 PM to 7 AM), noise from stationary trucks at the nearest loading dock are expected to comply with the City's L_{50} nighttime requirement assuming backup alarms are not continuously operating for more than 30 minutes per hour.

* * *

APPENDIX A: FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL NOISE

This section provides background information to aid in understanding the technical aspects of this report.

Three dimensions of environmental noise are important in determining subjective response. These are:

- The intensity or level of the sound
- The frequency spectrum of the sound
- The time-varying character of the sound

Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dBA), with 0 dBA corresponding roughly to the threshold of hearing.

The "frequency" of a sound refers to the number of complete pressure fluctuations per second in the sound. The unit of measurement is the cycle per second (cps) or hertz (Hz). Most of the sounds, which we hear in the environment, do not consist of a single frequency, but of a broad band of frequencies, differing in level. The name of the frequency and level content of a sound is its sound spectrum. A sound spectrum for engineering purposes is typically described in terms of octave bands, which separate the audible frequency range (for human beings, from about 20 to 20,000 Hz) into ten segments.

Many rating methods have been devised to permit comparisons of sounds having quite different spectra. Surprisingly, the simplest method correlates with human response practically as well as the more complex methods. This method consists of evaluating all of the frequencies of a sound in accordance with a weighting that progressively de-emphasizes the importance of frequency components below 1000 Hz and above 5000 Hz. This frequency weighting reflects the fact that human hearing is less sensitive at low frequencies and at extreme high frequencies relative to the mid-range.

The weighting system described above is called "A"-weighting, and the level so measured is called the "A-weighted sound level" or "A-weighted noise level." The unit of A-weighted sound level is sometimes abbreviated "dBA." In practice, the sound level is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting characteristic. All U.S. and international standard sound level meters include such a filter. Typical sound levels found in the environment and in industry are shown in Figure A-1.

Although a single sound level value may adequately describe environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise is a conglomeration of distant noise sources, which results in a relatively steady background noise having no identifiable source. These distant sources may include traffic, wind in trees, industrial activities, etc. and are relatively constant from moment to moment. As natural forces change or as human activity follows its daily cycle, the sound level may vary slowly from hour to hour. Superimposed on this slowly varying background is a succession of identifiable noisy events of brief duration. These may include nearby activities such as single vehicle pass-bys, aircraft flyovers, etc. which cause the environmental noise level to vary from instant to instant.

To describe the time-varying character of environmental noise, statistical noise descriptors were developed. "L10" is the A-weighted sound level equaled or exceeded during 10 percent of a stated time period. The L10 is considered a good measure of the maximum sound levels caused by discrete noise events. "L50" is the A-weighted sound level that equals or exceeded 50 percent of a stated time period; it represents the median sound level. The "L90" is the A-weighted sound level equaled or exceeded during 90 percent of a stated time period and is used to describe the background noise.

As it is often cumbersome to quantify the noise environment with a set of statistical descriptors, a single number called the average sound level or "L_{eq}" is now widely used. The term "L_{eq}" originated from the concept of a so-called equivalent sound level which contains the same acoustical energy as a varying sound level during the same time period. In simple but accurate technical language, the L_{eq} is the average A-weighted sound level in a stated time period. The L_{eq} is particularly useful in describing the subjective change in an environment where the source of noise remains the same but there is change in the level of activity. Widening roads and/or increasing traffic are examples of this kind of situation.

In determining the daily measure of environmental noise, it is important to account for the different response of people to daytime and nighttime noise. During the nighttime, exterior background noise levels are generally lower than in the daytime; however, most household noise also decreases at night, thus exterior noise intrusions again become noticeable. Further, most people trying to sleep at night are more sensitive to noise. To account for human sensitivity to nighttime noise levels, a special descriptor was developed. The descriptor is called the L_{dn} (Day/Night Average Sound Level), which represents the 24-hour average sound level with a penalty for noise occurring at night. The L_{dn} computation divides the 24-hour day into two periods: daytime (7:00 am to 10:00 pm); and nighttime (10:00 pm to 7:00 am). The nighttime sound levels are assigned a 10 dBA penalty prior to averaging with daytime hourly sound levels.

For highway noise environments, the average noise level during the peak hour traffic volume is approximately equal to the L_{dn}.

The effects of noise on people can be listed in three general categories:

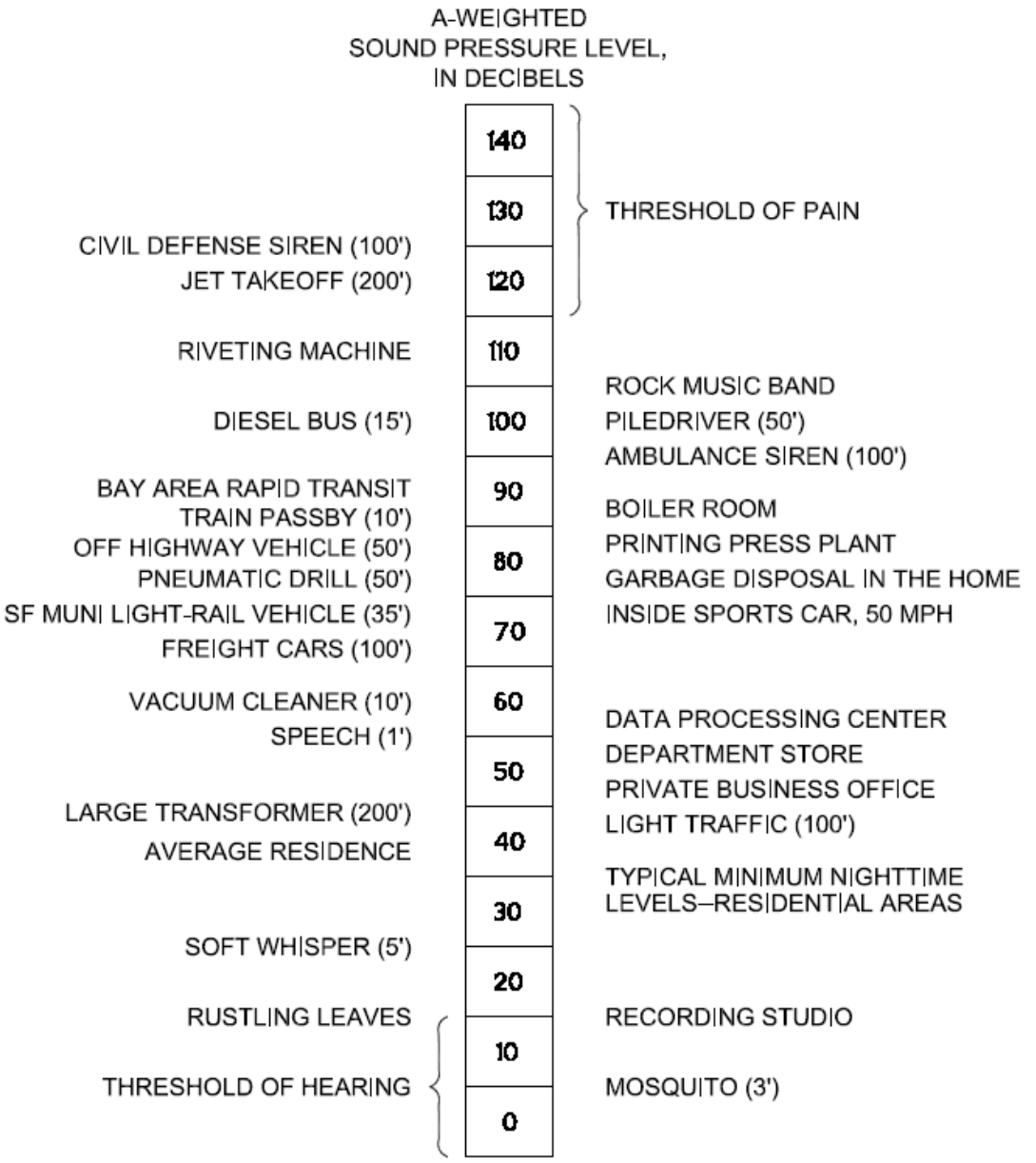
- Subjective effects of annoyance, nuisance, dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as startle, hearing loss

The sound levels associated with environmental noise usually produce effects only in the first two categories. Unfortunately, there has never been a completely predictable measure for the subjective effects of noise nor of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and habituation to noise over time.

Thus, an important factor in assessing a person's subjective reaction is to compare the new noise environment to the existing noise environment. In general, the more a new noise exceeds the existing, the less acceptable the new noise will be judged.

Regarding increases in noise level, knowledge of the following relationships will be helpful in understanding the quantitative sections of this report:

Except in carefully controlled laboratory experiments, a change of only 1 dBA in sound level cannot be perceived. Outside of the laboratory, a 3 dBA change is considered a just-noticeable difference. A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. A 10 dBA change is subjectively heard as approximately a doubling in loudness and would almost certainly cause an adverse community response.



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TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY

FIGURE A1

1107 C 11.25.03

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LIVERMORE SMP-39 SITE MEASUREMENT LOCATION AND MEASURED NOISE LEVEL

FIGURE 1

Salter #	MEV/ECS
23-0142	05.02.23

Attachment 3
SMP 40 Revised Environmental Noise Study

Oaks Business Park SMP-40

Livermore, CA

UPDATE TO ENVIRONMENTAL NOISE STUDY

4 March 2024

Prepared for: Michael Johnson
Overton Moore Properties
19700 S Vermont Avenue Suite #101
Torrance, CA 90502
MJohnson@omprop.com

Timur Tecimer
Overton Moore Properties
19700 S Vermont Avenue Suite #101
Torrance, CA 90502
ttecimer@omprop.com

Prepared by: Salter
Diego Hernandez – Associate dhernandez@salter-inc.com
Ethan Salter – Vice President esalter@salter-inc.com

Salter Project 21-0471

INTRODUCTION

This report summarizes our study of environmental noise of the proposed project (Livermore Oaks Business Park SMP-40) on nearby land uses. The project site is west of Isabel Avenue (State Highway 84), north of Stanley Boulevard, and south of Discovery Drive in Livermore, California. The purpose of the study was to determine whether estimated activity noise and construction noise from the proposed facility will meet the relevant requirements of the City General Plan Noise Element and Noise Ordinance at adjacent land uses.

EXECUTIVE SUMMARY

- Noise from the project's loading docks, future intra-project vehicle traffic, and likely HVAC equipment will increase CNEL[1] or DNL[2] noise levels at noise-sensitive receiver locations at most by 3 dB. An increase of 3 dB or less DNL is not expected to be noticeable and is not considered significant.
- Noise from project-created traffic would not result in a significant increase in noise levels on Isabel Avenue at adjacent properties.
- Temporary construction noise will exceed the City's Noise Ordinance and will need mitigation measures not to exceed the criteria established by General Plan Noise Objectives N-1.1 and N-1.5.

REPORT ORGANIZATION

This report is organized into the following sections:

- Project Site
- Acoustical Criteria
- Existing Noise Environment
- Noise Impact Assessment
  - Construction Noise
  - Loading Dock and Intra-Project Traffic Noise (Parking Lot)
  - Tenant HVAC Equipment Noise

[1] Community Noise Equivalent Level (CNEL) – A descriptor for the 24-hour A-weighted average noise level. The CNEL concept accounts for the increased acoustical sensitivity of people to noise during the evening and nighttime hours. Sound levels during the hours from 7 pm to 10 pm are penalized 5 dB; sound levels during the hours from 10 pm to 7 am are penalized 10 dB. A 10-dB increase in sound level is perceived by people to be a doubling of loudness.

[2] Day-Night Average Sound Level (DNL) – A descriptor established by the U.S. Environmental Protection Agency to describe the average day-night level with a penalty applied to noise occurring during the nighttime hours (10 pm - 7 am) to account for the increased sensitivity of people during sleeping hours. Also noted as Ldn. The difference between CNEL and DNL is often less than 1 dB.

PROJECT SITE

The proposed project will have a total area of approximately 40 acres, west of Isabel Avenue (State Highway 84) and between Stanley Boulevard and Discovery Drive in the City of Livermore. Warehouse Building 1 will be about 470,350 square feet with 68 loading docks, while Building 2 will be 288,750 square feet with 62 loading docks. The site is adjacent to existing industrially zoned warehouse facilities with loading docks to the north. Noise-sensitive residential receivers are located across Isabel Avenue to the east about 1,785-feet away from Building 1, and 600-feet away the northeast corner of the SMP-40 site. Two berms have been incorporated on the project site: a 6-foot by 125-foot landscape berm on the Northeast corner of the project property line, and a 10-foot by 60-foot screening wall east of Building 2's southern loading docks.

ACOUSTICAL CRITERIA

The following are project criteria and/or guidelines per the City of Livermore and State of California.

City of Livermore 2003-2025 General Plan Noise Element

Policy P4, Objective N-1.1

The Noise Element of the Livermore General Plan (Chapter 9, Policy P4 of Objective N-1.1) contains land use compatibility guidelines for environmental noise in the community. Table 1, below, summarizes these guidelines for residential and industrial land uses[3] in terms of CNEL or DNL. The definitions of each land use category follow below the table.

Table 1: Summary of Table 9-7 – Land Use Compatibility Guidelines for Community Noise CNEL or DNL, dB

Land Use Category	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential Low-Density[4], Single-family, Duplex, Mobile Homes	≤60	55-70	70-75	>75
Industrial, Manufacturing, Utilities, Agricultural	≤75	70-80	>75	--

[3] Table 9-7 of the Noise Element, page 9-27.

[4] Per General Plan Noise Ordinance Objective N-1.4, Policy P4, the criterion for single-family residential back yards is 60 dB CNEL/DNL.

Normally Acceptable: *If the noise level is within the "normally acceptable" level, noise exposure would be acceptable for the intended land use. Development may occur without requiring an evaluation of the noise environment unless the use could generate noise impacts on adjacent uses.*

Conditionally Acceptable: *If the noise level is within the "conditionally acceptable" level, noise exposure would be conditionally acceptable; a specified land use may be permitted only after detailed analysis of the noise environment and the project characteristics to determine whether noise insulation or protection features are required. Such noise insulation features may include measures to protect noise-sensitive outdoor activity areas (e.g., at residences, schools, or parks) or may include building sound insulation treatments such as sound-rated windows to protect interior spaces in sensitive receptors.*

Normally Unacceptable: *If the noise level is within the "normally unacceptable" level, analysis and mitigation are required. Development should generally not be undertaken unless adequate noise mitigation options have been analyzed and appropriate mitigations incorporated into the project to reduce the exposure of people to unacceptable noise levels.*

Clearly Unacceptable: *New construction should not be undertaken unless all feasible noise mitigation options have been analyzed and appropriate mitigation incorporated into the project to adequately reduce exposure of people to unacceptable noise levels.*

Noise Element Objective N-1.5

Objective N-1.5 seeks to reduce the level of noise generated by "stationary mechanical and other noise-generating equipment". Policy P1 states that "the City shall require that industrial and commercial uses be designed and operated to avoid the generation of noise effects on surrounding land uses from exceeding the following noise levels for exterior environments, operating longer than half an hour per hour:

- 55 dBA[5] L50[6] (7:00am to 10:00pm)
- 45 dBA L50 (10:00pm to 7:00am)

Policy P2 allows short-term events to have levels louder than those cited above. For events that occur less than 15 minutes per hour, levels can be increased by 5 dBA; events no more than 5 minutes per hour are allowed an additional 10 dBA, and those taking place one minute or less per hour are allowed an additional 15 dBA.

[5] A-Weighted Sound Level – The A-weighted sound pressure level, expressed in decibels (dB). Sometimes the unit of sound level is written as dB(A). A weighting is a standard weighting that accounts for the sensitivity of human hearing to the range of audible frequencies. People perceive a 10 dB increase in sound level to be twice as loud.

[6] L50 – The noise level exceeded 50% of the time. For a discussion of environmental acoustics, please refer to Appendix A.

Policy P4 allows an exemption from Policy P1 for motor vehicles on public streets between the hours of 7:00am and 8:00pm. We understand that Policies P1, P2, and P4 could apply to the noise from backup alarms (aka "beepers" or "squawkers").

Objective N-1.5 specifically describes "stationary source noises", so when referring to L_{50} noise levels we analyzed the noise of trucks that are expected to sit in the loading dock area, estimated to be at least 1,025 feet from the nearest residence.

Policy P3 establishes instantaneous maximum noise levels allowed (Lmax[7]) of 70 dBA during the day and 60 dBA during the night.

California Department of Transportation (CalTrans) Construction Vibration Criteria

The California Department of Transportation[8] (DOT) provides vibration guidelines for two scenarios: human perception and construction damage. These tables are included below as guidelines for potential project vibration levels. "Transient" vibrations are classified as impulsive events that are short in duration (e.g., debris falling, blasting). "Continuous" vibrations are more sustained vibration events over longer periods of time (e.g., jackhammering, drilling). Table 2 describes the human response to different levels of ground-borne vibration for transient and continuous events.

Table 2: Guideline Vibration Annoyance Potential Threshold Criteria[9]

Human Response	Maximum PPV[10] (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.00	0.40

7 L_{max} (Maximum Sound Level) – The maximum sound level for a specified measurement period of time as defined in ASTM E1686.

8 Transportation and Construction Vibration Guidance Manual September 2013 (DOT Document).

9 This is Table 20 from the DOT document.

10 (PPV): Peak Particle Velocity.

Table 3 provides a guideline for vibration criteria to assess the damage potential from ground vibration induced by construction equipment. Thresholds for continuous vibrations are lower than those for transient vibrations and are therefore considered more "conservative". These are standard significance thresholds used in the industry to determine impacts of ground borne vibrations on structures.

Table 3: Guideline Vibration Damage Potential Threshold Criteria[11]

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

The immediate adjacent properties are all modern industrial or commercial buildings. Across Isabel Avenue/Highway 84 to the east are existing single-family residences. Based on Table 3, we have applied the more stringent residential criteria of 1.0 PPV for transient events and 0.50 PPV for continuous events.

State of California CEQA Guidelines and Impact Criteria

The California Environmental Quality Act (CEQA) contains guidelines that evaluate the significance of noise attributable to a proposed project. This would include (but is not limited to) added traffic noise, mechanical equipment noise, and construction noise. CEQA asks the following applicable questions. Would the project result in:

1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
2. Generation of excessive ground borne vibration or ground borne noise levels?
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public-use airport, would the project expose people residing or working in the project area to excessive noise levels?

11 This is Table 19 of the DOT document.

CEQA does not define the noise level increase that is considered "substantial". Typically, the local general plan would establish limits with respect to allowable noise and vibration increases. However, the City of Livermore General Plan does not contain numerical standards of significance for noise increases. For the items above, noise level increases of 3 dBA or less are generally considered less-than-significant. Substantial adverse community response would be expected only for increases of 5 dBA or more.

EXISTING NOISE ENVIRONMENT

Project Site Description

To quantify the existing site noise environment, two monitors continuously measured noise levels along the project property lines to the north and east between 2 and 4 November 2021. Table 4 summarizes measured data and Figure 1, attached, shows the approximate measurement locations. Locations were selected based not only on project setbacks but also on what nearby locations were accessible via public rights-of-way.

Table 4: Measured Environmental Noise Levels

Site	Location	Measured DNL (dBA)
LT-1	Business Park, approximately 10-feet above grade	65
LT-2	Arroyo Bike Trail, approximately 10-feet above grade	67

Site Noise Context

Noise measurements at the project site (see Figure 1), collected data from vehicle pass-bys on nearby roads. Measured on-site noise levels were DNL 65 dB and 67 dB at the project site (see Figure 1). LT-1 was placed near the nearest existing warehouse across from residences, and LT-2 was placed on the closest accessible utility pole across from residences. Adjustments were made, as appropriate, to estimate the change in noise levels from the long-term monitor location to the locations of the nearest residences east of Isabel Avenue.

We have combined cumulative existing and future noise sources that would result from the project's completion. Future project sources include the proposed loading dock noise, rooftop HVAC equipment, parking areas, and estimated traffic contribution, while the existing noise sources are the existing traffic. Adding expected noise contribution to the existing noise environment logarithmically would result in a noise level of approximately DNL 67 dB from all contributing noise sources upon the project's completion.

DNL 29[a] dB [Future HVAC] + DNL 29[b] dB [employee lot] + DNL 52 [c] dB [trucks] = DNL 52 [d] dB [future noise level at receivers]

a = cumulative building rooftop HVAC noise
b = employee parking lot noise
c = truck noise at loading docks

d = cumulative future project sources

DNL 67[e] dB [existing traffic] + DNL 52[e] dB [combined future sources] = DNL 67[f] dB [future noise level at receivers]

e = measured at project site, see **Figure 1**
e = determined from loading docks + HVAC noise + parking lots
f = calculated

See Appendix A for additional information on decibel mathematics.

NOISE IMPACT ASSESSMENT ANALYSIS

We evaluated the following noise sources from the proposed project on the surrounding environment:

- Potential rooftop mechanical equipment noise
- Short-term construction noise and vibration
- Project-related traffic increases

We have drawn the following conclusions from the analysis:

The following summarizes the portion of the CEQA checklist pertaining to noise.

Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

A: Permanent Increase in Noise Levels due to Project-Generated Noise

The owner anticipates that tenant office spaces located on the corners of each building will be mechanically ventilated with typical 5-ton package units located above the offices in each corner of each building. No other outdoor mechanical equipment has been specified at this time. Specific equipment will be confirmed during the design phase.

Preliminary sound power level data has been provided for these 5-ton outdoor package fan units indicating that combined noise from these units sums to approximately DNL 29 dB at the nearest property lines. This assumes 24-hour operation of this equipment (in line with the operation hours of the building). The rooftop parapet is assumed to provide acoustical shielding to nearby neighbors because they would break line-of-sight to the nearest receivers.

Depending on the final equipment placement, as well as any specific parapets, barriers, and shielding provided by buildings (which would reduce noise levels at the property lines), noise levels may vary. We do not expect the noise contribution to be significant in these aspects.

B: Predicted Permanent Increase in Noise Levels due Project Traffic Volumes

It has been communicated by the team that the projected truck trips per day will be approximately as shown below in Table 5.

Table 5: SMP-40 Truck Trips

Hour	Percent	ITE Trips
7 – 9 AM	9.4%	20
9 AM – 4 PM	42.7%	91
4 – 6 PM	12.7%	27
6 – 10 PM	16.4%	35
10 PM – 7 AM	18.8%	40
Total	100 %	213

Overall, the project would result in a net increase in daily trips by 213, amounting to an overall traffic noise DNL increase of approximately 2 dB. Therefore, this would not result in a significant increase in noise levels at existing adjacent properties.

C: Temporary Increase in Noise Levels due to Construction

Construction activities will likely include the use of heavy equipment for grading and other activities, through completion of buildings and landscaping. Heavy trucks would travel to, from, and within the site hauling soil, equipment, and building materials. Smaller equipment, such as jackhammers, pneumatic tools, and saws could also be used throughout the demolition and construction phases in various areas. The noise and vibration associated with these activities would be generated within the entire project area.

Based on our experience with similar projects' construction methods and phasing, our preliminary understanding and assumptions of expected equipment is shown in Table 6. Reference levels for construction equipment are listed in Table 7, both at the reference distance of 50-feet and at 600-feet, which is the closest distance between the project and the residences across Isabel Avenue.

Table 6: List of Typical Construction Equipment and Phasing

Phase	Equipment
Demolition	Concrete/Industrial Saws, Excavators, Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Site Preparation	Graders, Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Grading/Excavation	Excavators, Drill Rig for Shoring Beams (Caisson Drilling), Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Trenching	Tractor/Loader/Backhoe, Excavators
Building Exterior	Cranes, Forklifts, Generator Sets, Tractors/Loaders/Backhoes, Welders
Building Interior/ Architectural Coating	Air Compressors, Aerial Lift
Paving/Landscaping/ Site Concrete	Cement and Mortar Mixers, Paving Equipment, Rollers, Tractors/Loaders/Backhoes

Table 7: Construction Equipment Reference Noise Levels[12]

Typical Equipment	Estimated Maximum Instantaneous L_{max}[13] Noise Level (dBA at 50 feet)	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 600 feet)
Aerial Lift	83	61
Air Compressors	81	59
Cement and Mortar Mixers	85	63
Concrete/Industrial Saws	76	54
Cranes	83	61
Drill Rig for Shoring Beams (Caisson Drilling)	85	63
Excavators	85	63
Forklifts	83	61
Generator Sets	81	59
Graders	85	63
Paving Equipment	89	67
Rollers	74	52
Rubber-Tired Dozers	85	63
Tractors/Loaders/Backhoes	84	62
Welders	73	51

Actual construction noise levels will vary based on distance to each piece of equipment or work area from the receiver and shielding from adjacent buildings and construction elements. It should be noted that construction activities are prohibited during the specific time period outlined in Section 9.36.080 of the City's Municipal Code. Section 9.36.080 is as follows:

12 Equipment noise levels at 50-feet are from Section 9, Federal Highway Administration Highway Traffic Noise Construction Noise Handbook (August 2006) and Table 12-2, Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

13 L_{max} (Maximum Sound Level) – The maximum sound level for a specified measurement period of time as defined in ASTM E1686.

Section 9.36.080 Hammers, pile drivers, pneumatic tools and similar equipment

The operation between the hours of 6:00 p.m. Saturday to 7:00 a.m. Monday; 8:00 p.m. to 7:00 a.m. on Monday, Tuesday, Wednesday and Thursdays; 8:00 p.m. Friday to 9:00 a.m. on Saturday or at all on city-observed holidays of any pile driver, pneumatic tools, derrick, electric hoist, sandblaster or other equipment used in construction, demolition or other repair work, the use of which is attended by loud or unusual noise, is prohibited. (Ord. 1672 § 2, 2002; Ord. 1128 § 2, 1983; 1960 code § 13B.3(f))

Construction Equipment Schedule

We received the following equipment schedule that CalEEMod utilized for their model for air quality emissions. Table 8 below summarizes the equipment and associated sound levels at the nearest residential property (approximately 600 feet away).

Table 8: Construction Equipment Schedule

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Resulting DNL	Resulting Lmax
Grading	Excavators	2	8	67	66
Grading	Graders	1	8	67	63
Grading	Rubber Tired Dozers	1	8	67	63
Grading	Scrapers	2	8	67	66
Grading	Tractors/Loaders/Backhoes	2	8	67	65
Total Grading Phase	**All Equipment Running Simultaneously**			**70**	**72**
Paving	Pavers	2	8	69	70
Paving	Paving Equipment	2	8	69	70
Paving	Rollers	2	8	66	55
Total Paving Phase	**All Equipment Running Simultaneously**			**70**	**73**
Building Construction	Cranes	1	7	67	61
Building Construction	Forklift	3	8	67	66
Building Construction	Generator Sets	1	8	67	59
Building Construction	Tractors/Loaders/Backhoes	3	7	68	67
Building Construction	Welders	1	8	66	51
Total Building Construction	**All Equipment Running Simultaneously**			**69**	**70**
Architectural Coating	Air Compressors	1	8	67	59

It should be noted that the DNL was calculated using daytime construction noise levels for daytime hours for the listed hours of operation and measured nighttime hours from existing traffic. Despite restrictions of nighttime construction activities, from the noise levels shown above in Table 8, it could be possible to exceed the General Plan Objectives as follows:

Objective N-1.5 P3

- As shown above in Table 8, with all the phases running construction equipment as intended, the resulting Lmax would range between 70 and 73 dBA. Since construction is not permitted during nighttime hours, only the daytime Lmax criterion of 70 dBA would be applicable and would not be met. Therefore, it will be necessary to implement the mitigation measures shown below.

Due to these possibilities, the following is a list of measures that are required to be adopted by the contractor to reduce the impact of construction noise on neighbors:

1. Consistent with the Livermore Municipal Code, construction will be limited to weekdays between the hours of 7:00 a.m. and 8:00 p.m. and Saturdays through Sunday between the hours of 9:00 a.m. and 6:00 p.m.
2. There are residences located approximately 600 feet from the project site. Thus, to help reduce the impact of noise construction, it will be necessary that a barrier be built prior to the planned permanent 10-foot tall berm on the east side of the project. If this is not feasible, we recommend building the planned permanent 10-foot tall berm before construction activities. This will be necessary to reduce construction noise impacts on the residences. The barrier/berm should be 10 feet tall. This would help reduce the construction noise impacts on the residences by approximately 10 dB.
3. The barrier can be field-built provided they meet the following criteria:
    a. Minimum surface density of 4 psf.

       Many constructions could meet the surface density requirement. For example, a stud wall with exterior-grade plywood sheathing and a stucco finish (or two layers of 5/8-inch thick plywood) would meet this requirement.

    b. The barrier should be free of cracks and drainage holes/slots along the bottom of the barrier be kept to a minimum. Where needed, they should be covered by 1 psf mass-loaded vinyl flaps (e.g., Kinetics KNM-100) so water can flow around the vinyl and still drain.

    c. Joints between sheathing layers be offset by 16 inches minimum.
4. Contractors shall utilize “quiet” models of air compressors and other stationary noise sources where technology exists.
5. Internal combustion engine-driven equipment shall be equipped with mufflers which are in good condition and appropriate for the equipment.

6. Stationary noise-generating equipment, such as air compressors and portable power generators, shall be located as far away as possible from adjacent property lines.
7. Staging areas and construction material areas shall be located as far away as feasible from adjacent residences.
8. All unnecessary idling of internal combustion engines should be prohibited.
9. The contractor should designate a "noise disturbance construction superintendent" who will be responsible for tracking and responding to any complaints about construction noise. The noise disturbance construction superintendent will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures are implemented to correct the problem. The telephone number for the noise disturbance construction superintendent will be posted at the construction site and included in any construction notices sent to neighbors.

Would the project result in generation of excessive ground-borne vibration or ground-borne noise levels?

A: Permanent Increase in Vibration Levels due to Project-Generated Vibration

The planned use for the site, as warehouse buildings, is not expected to generate significant amounts of ground-borne noise or vibration.

B: Temporary Increase in Vibration Levels due to Construction

The nearest and most sensitive adjacent receivers include residences to the east approximately 500 feet from the closest area of construction on the project site. Industrial-zoned parcels to the north are assumed to be less sensitive.

Project construction may include activities such as the use of concrete saws, excavation and grading, and the use of rolling stock equipment (tracked vehicles, compactors, etc.). Typical construction vibration levels at 50-feet are listed in Table 9, below. Most of the construction will occur set back from the property line. As indicated in the criteria section above, the risk of damage to nearby structures may begin to occur at a limit of 1.0 in/sec PPV for transient vibration events and 0.50 PPV for continuous events.

Table 9: Example Construction Vibration Levels[14]

Equipment	PPV at 50 ft. (in/sec)[15]
Vibratory Roller	0.049
Hydraulic Breaker	0.03 to 0.08
Large Bulldozer	0.03
Loaded Trucks	0.03
Excavator	0.03
Caisson/pier drilling	0.03
Jackhammer	0.01
Small Bulldozer	0.001
Crane, Forklift, Bobcat	No significant vibration

Based on the vibration levels shown in Table 9, construction equipment is not expected to cause structural damage to adjacent properties because project construction is not expected to exceed the thresholds for new residential buildings or commercial/industrial structures as shown above in Table 3. Ground-borne noise would also not be expected to be significant at these vibration levels.

FUTURE LOADING DOCK AND INTRA-PROJECT TRAFFIC NOISE

Future Loading Dock Calculation Methodology

Operational noise from the proposed facility is expected to consist primarily of tractor-trailers accessing loading dock areas. To estimate truck noise at the proposed facility, we referenced recently measured noise levels at a local distribution facility which involved semi-trucks similar in size to those that are expected to access the proposed project's facility.

Calculations for resulting noise levels due to on-site truck and car trip generation durations and activities were based on the measurements at this local distribution facility with ancillary information provided to us for that project on 15 February 2018 and 20 December 2023.

Based on the assumptions described below, estimated noise levels were then compared to applicable criteria to determine if noise from the proposed facility would exceed the City's noise goals (described above) at adjacent residences.

14 Table 12-2, Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

15 Using a value of n = 1.5 per FTA recommendation, where n is the attenuation rate through the ground

Traffic volumes produced by the proposed project were provided by TJKM in December 2023. Their study estimated that a total of 213 truck trips[16] would occur at the facilities throughout the 24 hours of operation. Overton Moore Properties provided further details about the potentially likely distribution of those trucks each hour throughout the 24-hour operation period.

Intra-Project Traffic Analysis Methodology

Intra-project traffic noise will consist of traffic noise associated with future warehouse employee vehicles within the designated parking lots. To estimate vehicle noise at the employee parking lots, we referenced the TJKM provided traffic volumes for the proposed project.

Noise Source Analysis and Assumptions

Future Loading Docks

Our analysis estimated future noise from the facility based on the following assumptions discussed with the client via email, and per the overall site plan:

1. Trucks will enter and exit the site from Atlantis Court and Challenger Street, from the north (via Discovery Drive).
2. Non-truck noises associated with loading/unloading activity (i.e., forklifts, rolling doors, carts, pallet crushing, items dropping), are assumed to be located near the dock doors and are included in our analysis.
3. An average truck trip (not including unloading/loading) is estimated to last for a cumulative period of about 2 minutes and be at least 1025 feet from the nearest residential property line.
4. Trucks occupy the loading dock in their loading area that is nearest to noise-sensitive receiver (Residents across Isabel Avenue, to the east of the building).
5. Total number of loading docks: 130 (68 in Building 1 and 62 in Building 2)
6. Number and distribution of truck trips is based on TJKM's traffic study estimate, with approximately 213 total truck trips per 24-hour period (continuous 24/7 operation) distributed as follows:
    - AM Peak is 7-9 AM – 9.4%
    - 9-4 PM – 42.7%
    - PM Peak is 4 PM - 6 PM – 12.7%
    - 6 PM - 10 PM – 16.4%
    - 10 PM - 7 AM – 18.8%

[16] Email correspondence provided on 12/20/23 confirmed the 213 daily truck trips as 20% of total vehicle trips based in ITE data (TJKM Study)

7. Building 2 provides substantial acoustical shielding for most of Building 1 and its operations to the eastern residents. Because of this, Building 1 is not expected to have a meaningful impact on the residential receivers' sound environment to the east.
8. Loading docks in Building 2 are located on the north and south facades, configured to maintain the maximum possible distance away from the residential area to the east.
9. North-facing docks of Building 2 will have a direct line-of-sight to the warehouse to the north. We assume that some shielding is provided by the perpendicular orientation of the docks of Building 1, which would slightly reduce our overall calculated noise contribution of the loading docks to the northern warehouse receivers because of the partial line-of-sight.
10. 24-hour operation assumed.
11. Loading docks not in use on each building have closed doors.
12. A typical truck "trip" consists of the following events (estimated sound levels based on aforementioned measurements at similar facilities):
    a. Truck passby (arrival, departure at slow speed): 69 dBA at 30 feet
    b. Truck airbrakes: 72 dBA at 25 feet
    c. Truck backup alarm: 79 dBA at 30 feet
    d. Brief idle before engine shutoff: 70 dBA at 25 feet
    e. Truck engine ignition and airbrakes: 71 dBA at 25 feet
    f. Truck accelerating from stop: 74 dBA at 25 feet
    g. Truck noise source reference heights[17] (above grade)
        i. Passby, brief idle, acceleration, and ignition: 8 feet
        ii. Back-up beeper and airbrake: 2.5 feet
        iii. Topographical site analysis included in Section C3.1 of the Grading and Drainage Plan show potential terrain shielding of about three feet between the dock elevation and receivers to the east of Isabel Avenue

Intra-Project Traffic Noise

Our analysis estimated future noise from the facility parking lots is based on the following assumptions:

1. Employees will enter and exit the site from Atlantis Court and Challenger Street, from the north (via Discovery Drive).
2. Once on site, vehicles will move at 15 miles per hour or less.
3. Vehicles will be spread out evenly amongst the seven parking areas.

[17] Truck source heights excerpted from Caltrans Technical Noise Supplement document (TeNS) document dated October 1998.

4. An average vehicle trip is estimated to last for a cumulative period of about 2 minutes and be at least 550 feet from the nearest residential property line.
5. Similar proportional percentages were assumed for vehicle trips in the project parking lots as were the truck trips, as shown in the distribution below.
    - AM Peak is 7 AM - 9 AM- 9.4%
    - 9 AM – 4 PM -42.7%
    - PM Peak is 4 PM -6 PM -12.7%
    - 7 PM - 10 PM 16.4%
    - 10 PM - 7 AM 18.8%

Estimated Future Noise Levels

Future Average Noise Levels (CNEL/DNL)

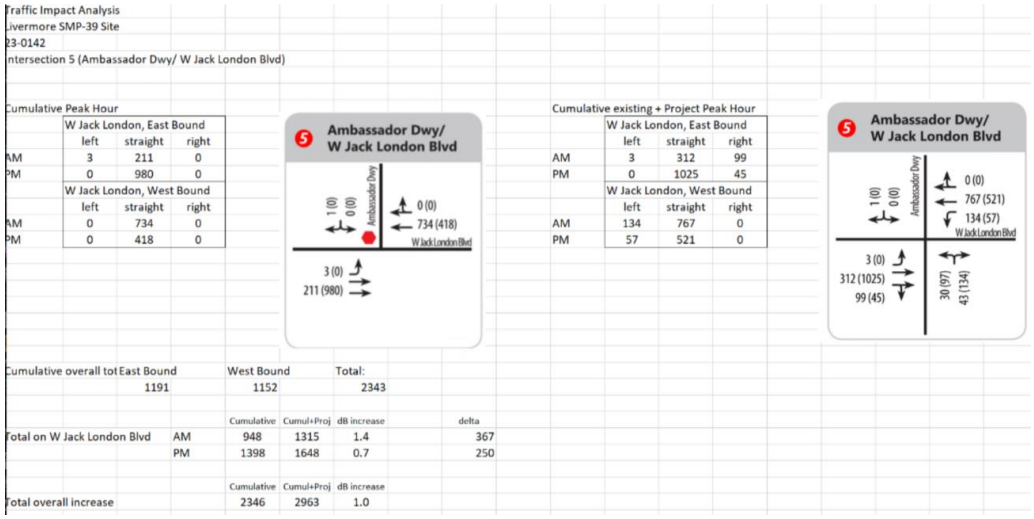
We estimated noise levels at local receptors from the sources described in the previous section. To account for future increases in local traffic noise levels (growth in traffic on Isabel Avenue and other local roadways), we added 1 dB DNL to the measured levels[18] (see **Table 4** above).

We calculated the acoustical impact of project traffic increase due to both projects SMP-39 and SMP-40 with the provided peak hour traffic volumes for the cumulative without project and cumulative with project scenarios. The analysis used the FHWA-RD-77-108 traffic noise calculation model. The figures below show the various calculations for the intersections of interest (i.e., 5, 9, 10, and 11) as provided to us via the traffic volume study developed for both SMP-39 and SMP-40.

Figure A: Intersection Map Legend

[18] The California Department of Transportation assumes a traffic volume increase of three-percent per year, which corresponds to a 1 dBA increase in DNL over a ten-year period.

Figure B: Traffic Volume Analysis for Intersection 5



Traffic Impact Analysis
Livermore SMP-39 Site
23-0142
Intersection 5 (Ambassador Dwy/ W Jack London Blvd)

Cumulative Peak Hour

	W Jack London, East Bound		
	left	straight	right
AM	3	211	0
PM	0	980	0
	W Jack London, West Bound		
	left	straight	right
AM	0	734	0
PM	0	418	0

5 Ambassador Dwy/ W Jack London Blvd

1 (0)
0 (0)
Ambassador Dwy
0 (0)
734 (418)
W Jack London Blvd
3 (0)
211 (980)

Cumulative existing + Project Peak Hour

	W Jack London, East Bound		
	left	straight	right
AM	3	312	99
PM	0	1025	45
	W Jack London, West Bound		
	left	straight	right
AM	134	767	0
PM	57	521	0

5 Ambassador Dwy/ W Jack London Blvd

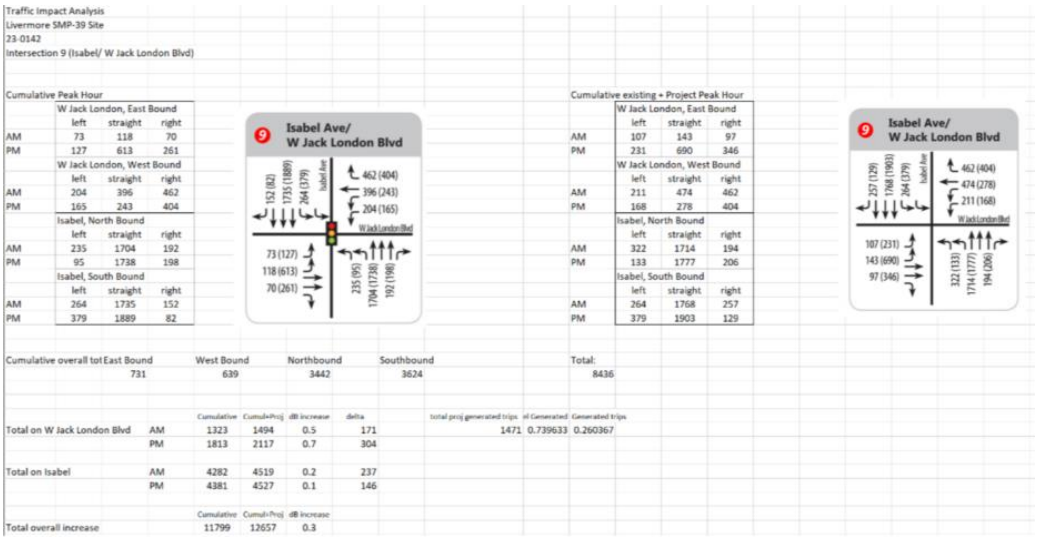
1 (0)
0 (0)
Ambassador Dwy
0 (0)
767 (521)
134 (57)
W Jack London Blvd
3 (0)
312 (1025)
99 (45)
30 (97)
43 (134)

Cumulative overall tot	East Bound	West Bound	Total:
	1191	1152	2343

		Cumulative	Cumul+Proj	dB increase	delta
Total on W Jack London Blvd	AM	948	1315	1.4	367
	PM	1398	1648	0.7	250

	Cumulative	Cumul+Proj	dB increase
Total overall increase	2346	2963	1.0

Figure C: Traffic Volume Analysis for Intersection 9



Traffic Impact Analysis
Livermore SMP-39 Site
23-0142
Intersection 9 (Isabel/ W Jack London Blvd)

Cumulative Peak Hour

	W Jack London, East Bound		
	left	straight	right
AM	73	118	70
PM	127	613	261
	W Jack London, West Bound		
	left	straight	right
AM	204	396	462
PM	165	243	404
	Isabel, North Bound		
	left	straight	right
AM	235	1704	192
PM	95	1738	198
	Isabel, South Bound		
	left	straight	right
AM	264	1735	152
PM	379	1889	82

9 Isabel Ave/ W Jack London Blvd

152 (82)
1735 (1889)
264 (379)
Isabel Ave
462 (404)
396 (243)
204 (165)
W Jack London Blvd
73 (127)
118 (613)
70 (261)
235 (95)
1704 (1738)
192 (198)

Cumulative existing + Project Peak Hour

	W Jack London, East Bound		
	left	straight	right
AM	107	143	97
PM	231	690	346
	W Jack London, West Bound		
	left	straight	right
AM	211	474	462
PM	168	278	404
	Isabel, North Bound		
	left	straight	right
AM	322	1714	194
PM	133	1777	206
	Isabel, South Bound		
	left	straight	right
AM	264	1768	257
PM	379	1903	129

9 Isabel Ave/ W Jack London Blvd

257 (129)
1768 (1903)
264 (379)
Isabel Ave
462 (404)
474 (278)
211 (168)
W Jack London Blvd
187 (231)
143 (690)
97 (346)
322 (133)
1714 (1777)
194 (206)

Cumulative overall tot	East Bound	West Bound	Northbound	Southbound	Total:
	731	639	3442	3624	8436

		Cumulative	Cumul+Proj	dB increase	delta	total proj generated trips	nl Generated	Generated trips
Total on W Jack London Blvd	AM	1323	1494	0.5	171	1471	0.739633	0.260367
	PM	1813	2117	0.7	304			
Total on Isabel	AM	4282	4519	0.2	237			
	PM	4381	4527	0.1	146			

	Cumulative	Cumul+Proj	dB increase
Total overall increase	11799	12657	0.3

Figure D: Traffic Volume Analysis for Intersection 10

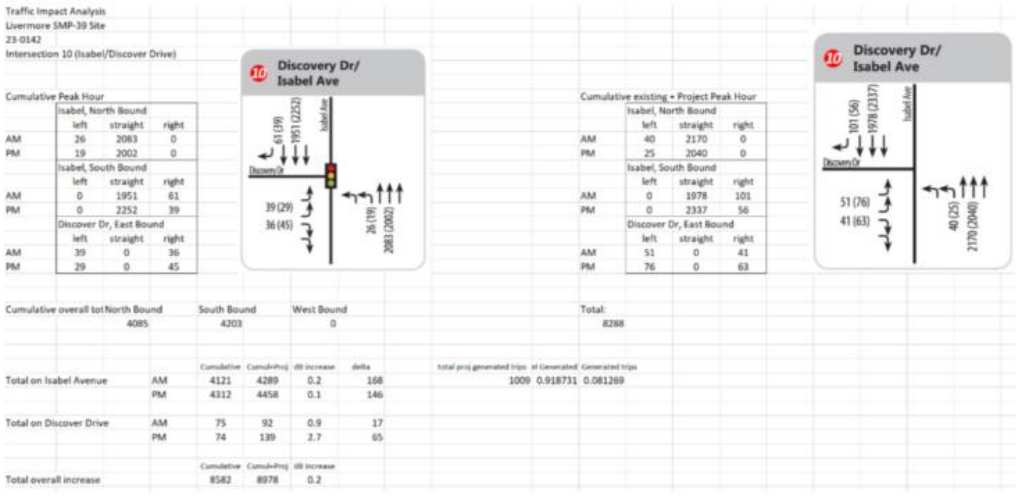
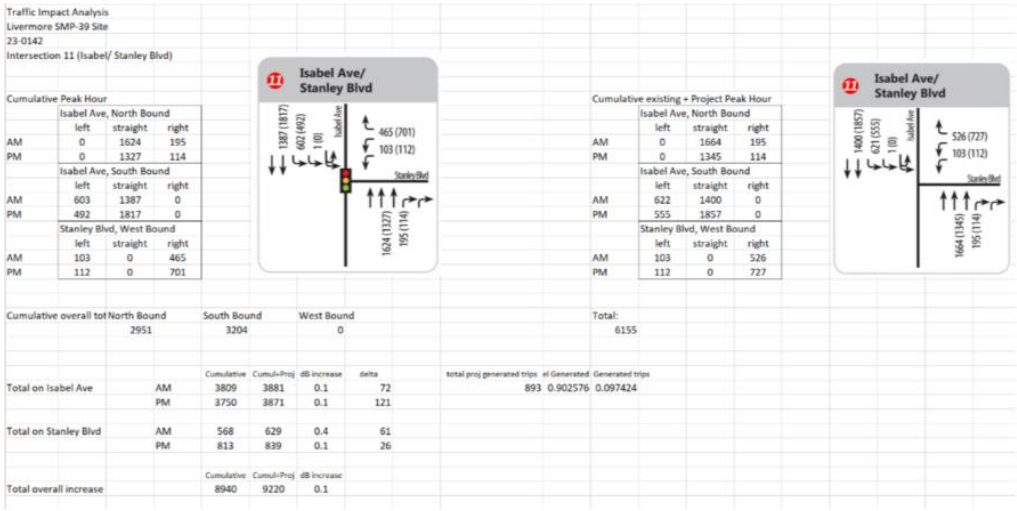


Figure E: Traffic Volume Analysis for Intersection 11



As shown above, the increase in traffic due to the project would be approximately 1 to 2 dBA to the DNL when combined.

Table 10 below summarizes the estimated DNL levels at the closest property plane to the east of the building, under the assumption that the facility would receive its trucking and commuting employee activities during the 24 hours of operation.

Table 10: Calculated 24-Hour Future Facility Noise at Nearest Noise-Sensitive Land Uses: CNEL/DNL, dBA

Nearby Receiving Locations	Existing Noise at Receiver (Residences)	Loading Docks at Receiver	Intra-Project Traffic Noise Levels at Receiver	Combined Existing plus Project	Change (dBA)
East Property Line (Residences across Isabel)	67	60	32	69	+2
North Property Line (Neighboring Warehouse)	65	65	36	68	+3

The calculated increase in DNL at the residential property line with the project and future traffic noise levels (near term 2025) will be approximately 2 dB. At the northern industrial uses, a DNL 3 dB change is predicted. A change of 3 dB or less is not expected to be noticeable and is not considered significant.

Our calculations of maximum noise levels assume that the trucks operating at the closest docks to the residences will be active at the same proportion as stated above. The noise analysis also assessed the increase in traffic noise levels resulting from project traffic in combination with future traffic noise level increases on the surrounding roadway network resulting from other anticipated development in the region. The resultant cumulative increase is 3 dB. This would not be considered a significant increase to the predicted project operation noise environment.

Future L_{50} Noise Levels

The following assumptions were made about the 24-hour operation of the project in our estimated L_{50} calculations:

- The volume of expected truck trips is consistent with the truck trip distribution established in item 6 of the Noise Source Analysis and Assumptions section (i.e., a maximum of 5 trucks per hour at nighttime, or 18.8% of trucks between 10:00 pm and 7:00 am).
- The 6- and 10-foot berms will be incorporated into the project.
- Backup alarms are expected to be at a height of approximately 2.5 feet.
- Trucks do not move great distances when their backup alarm is engaged.

Table 11 summarizes the estimated daytime and nighttime L_{50} for the proposed project. Since backup alarms for nighttime are predicted to occur less than 15 minutes per hour, the criterion can increase by 5 dBA per Policy P2. However, since back up alarms would be more than 15 minutes per hour during the daytime, no additional increases are accounted for in our analysis.

Table 11: Calculated 24-Hour Future Facility L_{50} Value: L_{50}, dBA

Time of Day	Estimated L_{50} Value	Criterion L_{50} Value
Daytime (7am-10pm)	50 dBA	55 dBA
Nighttime (10pm-7am)	45 dBA	50 dBA

Although our calculations of overall operational L_{50} noise levels do not exceed the allowable values stated by the City (i.e., Policy P1, Objective N-1.5), backup alarm noise may be audible at residences to the east during quieter nighttime hours. It is our understanding that other current similar projects in the vicinity have caused local neighbor complaints due to trucks' back-up alarms at those locations in the past.

Back-up alarms were assumed to be 79 dB at a reference distance of 30 feet. The distance attenuation between the loading dock to the façade of the nearest residence provides a 31 dB reduction. Although backup alarms would be audible from the residences, the L_{50} threshold of 50 dBA will not be exceeded due to the limited number of trips during this timeframe (estimated at 40 trips in 9-hour time frame).

Calculations assumed the source height of these backup alarms to be approximately 2.5 feet from grade. The incorporation of the proposed 6- and 10-foot-tall berms would adequately obstruct the direct line-of-sight of these backup alarms to the residential receivers. The dimensions of the proposed berms are calculated to reduce intermittent noise levels (such as those produced by backup alarms) by up to 6 dB at the closest residents.

Quieter backup alarms (aka "squawkers"), which are becoming more prevalent in delivery vehicles for various large e-commerce websites, and other vendors, may be used by trucking operators visiting this site in the future, therefore beeper noise has the potential to be reduced. A best practice for consideration would be to implement these alternative devices in other truck populations in the future.

CONCLUSIONS AND COMMENTS

1. Future cumulative project site noise from rooftop HVAC equipment, loading dock-generated noise, stationary trucks, and employee vehicles, is not expected to significantly impact receivers to the east or to the north. The calculated increase in CNEL/DNL for the warehouse receivers to the north will be 3 dB, while the closest residential receivers across Isabel Avenue will have a 2dB increase from the existing environment under the expected 24-hour operations.

   A change of 3 dB or less is not considered significant for residents to the east or the commercial neighbors to the north of the project site. A cumulative DNL of 69 dB for the receivers does not exceed the industrial 75 dB DNL threshold defined in Table 9-7 of the Livermore Noise Element as well as the L_{50} level from Objective N-1.5 of the General Plan.

   Considering the 1,025-foot distance between the nearest loading dock and the closest residents, and the trucks being a stationary source rather than a moving vehicle once the leaving the loading dock area of the project site, the city's L_{50} criterion is not applicable once a truck begins moving closer to the residential area. Given the minority of expected project truck trips conducted in the nighttime

hours (less than 5 trips per hour on average from 10 PM to 7 AM), noise from stationary trucks at the nearest loading dock are expected to comply with the City's L_{50} nighttime requirement assuming backup alarms are not continuously operating for more than 30 minutes per hour.

2. Temporary construction noise will impact the residences, and thus, it will be necessary to incorporate mitigation measures such as a 10-foot-tall berm or barrier on the east side of the project to reduce the noise by 10 dB.

3. It is our understanding that there are no State or Federal requirements for noise levels of backup alarms except for OSHA, which only requires them to be "significantly louder" than the surrounding environment. Because the background noise levels around most facilities are not known, manufacturers typically increase the alarm volume to compensate.

   Best practices to reduce alarm audibility at the facility to be evaluated would be to require users to limit alarm volume levels, employ signal personnel, lights, and other means to notify people about ongoing truck activities within the facility.

* * *

Cc: Jennifer Freedman (jfreedman@omprop.com)

APPENDIX A: FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL NOISE

This section provides background information to aid in understanding the technical aspects of this report.

Three dimensions of environmental noise are important in determining subjective response. These are:

- The intensity or level of the sound
- The frequency spectrum of the sound
- The time-varying character of the sound

Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dBA), with 0 dBA corresponding roughly to the threshold of hearing.

The "frequency" of a sound refers to the number of complete pressure fluctuations per second in the sound. The unit of measurement is the cycle per second (cps) or hertz (Hz). Most of the sounds, which we hear in the environment, do not consist of a single frequency, but of a broad band of frequencies, differing in level. The name of the frequency and level content of a sound is its sound spectrum. A sound spectrum for engineering purposes is typically described in terms of octave bands, which separate the audible frequency range (for human beings, from about 20 to 20,000 Hz) into ten segments.

Many rating methods have been devised to permit comparisons of sounds having quite different spectra. Surprisingly, the simplest method correlates with human response practically as well as the more complex methods. This method consists of evaluating all of the frequencies of a sound in accordance with a weighting that progressively de-emphasizes the importance of frequency components below 1000 Hz and above 5000 Hz. This frequency weighting reflects the fact that human hearing is less sensitive at low frequencies and at extreme high frequencies relative to the mid-range.

The weighting system described above is called "A"-weighting, and the level so measured is called the "A-weighted sound level" or "A-weighted noise level." The unit of A-weighted sound level is sometimes abbreviated "dBA." In practice, the sound level is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting characteristic. All U.S. and international standard sound level meters include such a filter. Typical sound levels found in the environment and in industry are shown in Figure A-1.

Although a single sound level value may adequately describe environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise is a conglomeration of distant noise sources, which results in a relatively steady background noise having no identifiable source. These distant sources may include traffic, wind in trees, industrial activities, etc. and are relatively constant from moment to moment. As natural forces change or as human activity follows its daily cycle, the sound level may vary slowly from hour to hour. Superimposed on this slowly varying background is a succession of

identifiable noisy events of brief duration. These may include nearby activities such as single vehicle pass-bys, aircraft flyovers, etc. which cause the environmental noise level to vary from instant to instant.

To describe the time-varying character of environmental noise, statistical noise descriptors were developed. "L10" is the A-weighted sound level equaled or exceeded during 10 percent of a stated time period. The L10 is considered a good measure of the maximum sound levels caused by discrete noise events. "L50" is the A-weighted sound level that is equaled or exceeded 50 percent of a stated time period; it represents the median sound level. The "L90" is the A-weighted sound level equaled or exceeded during 90 percent of a stated time period and is used to describe the background noise.

As it is often cumbersome to quantify the noise environment with a set of statistical descriptors, a single number called the average sound level or "L_{eq}" is now widely used. The term "L_{eq}" originated from the concept of a so-called equivalent sound level which contains the same acoustical energy as a varying sound level during the same time period. In simple but accurate technical language, the L_{eq} is the average A-weighted sound level in a stated time period. The L_{eq} is particularly useful in describing the subjective change in an environment where the source of noise remains the same but there is change in the level of activity. Widening roads and/or increasing traffic are examples of this kind of situation.

In determining the daily measure of environmental noise, it is important to account for the different response of people to daytime and nighttime noise. During the nighttime, exterior background noise levels are generally lower than in the daytime; however, most household noise also decreases at night, thus exterior noise intrusions again become noticeable. Further, most people trying to sleep at night are more sensitive to noise. To account for human sensitivity to nighttime noise levels, a special descriptor was developed. The descriptor is called the L_{dn} (Day/Night Average Sound Level), which represents the 24-hour average sound level with a penalty for noise occurring at night. The L_{dn} computation divides the 24-hour day into two periods: daytime (7:00 am to 10:00 pm); and nighttime (10:00 pm to 7:00 am). The nighttime sound levels are assigned a 10 dBA penalty prior to averaging with daytime hourly sound levels.

For highway noise environments, the average noise level during the peak hour traffic volume is approximately equal to the L_{dn}.

The effects of noise on people can be listed in three general categories:

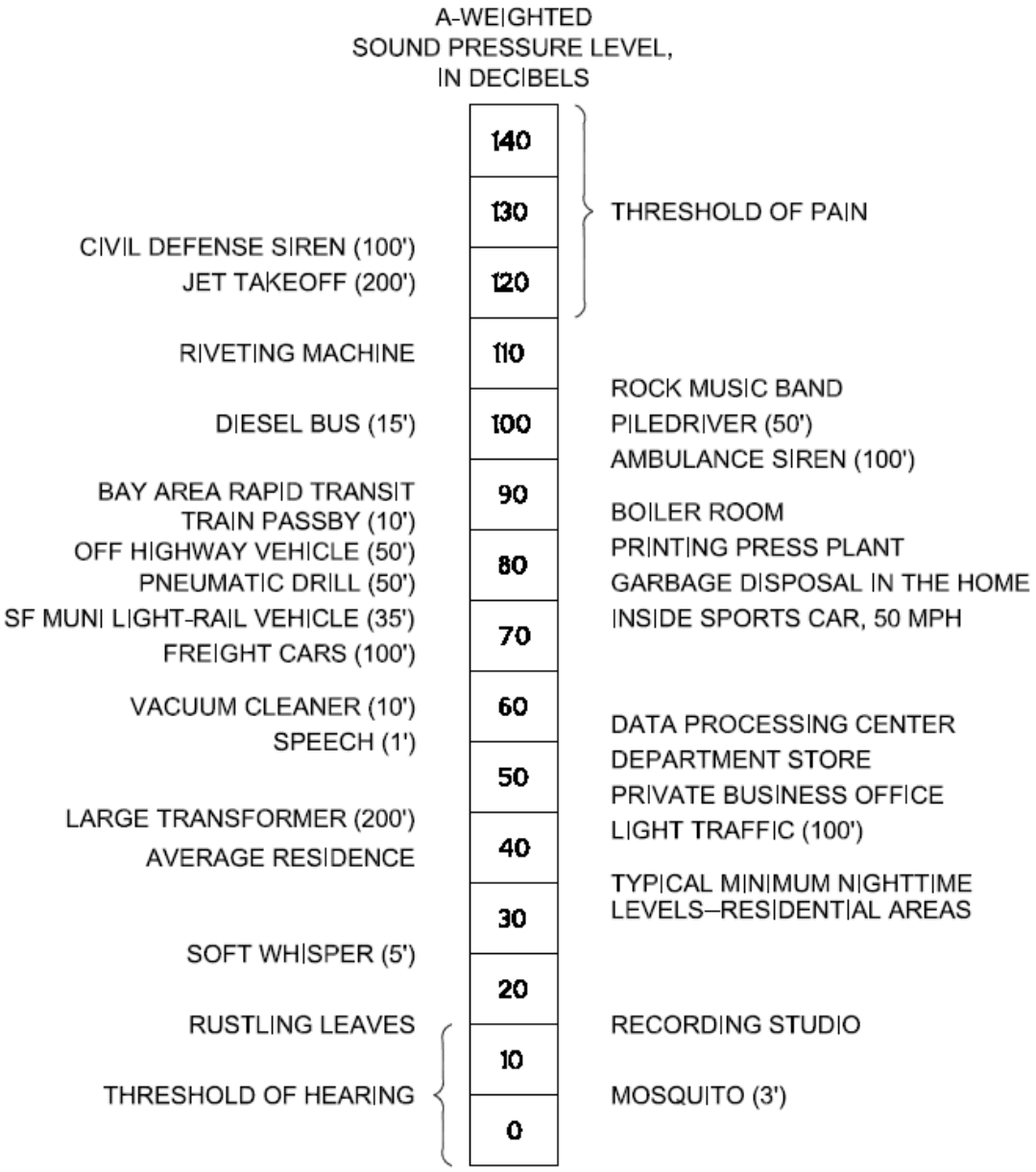
- Subjective effects of annoyance, nuisance, dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as startle, hearing loss

The sound levels associated with environmental noise usually produce effects only in the first two categories. Unfortunately, there has never been a completely predictable measure for the subjective effects of noise nor of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and habituation to noise over time.

Thus, an important factor in assessing a person's subjective reaction is to compare the new noise environment to the existing noise environment. In general, the more a new noise exceeds the existing, the less acceptable the new noise will be judged.

With regard to increases in noise level, knowledge of the following relationships will be helpful in understanding the quantitative sections of this report:

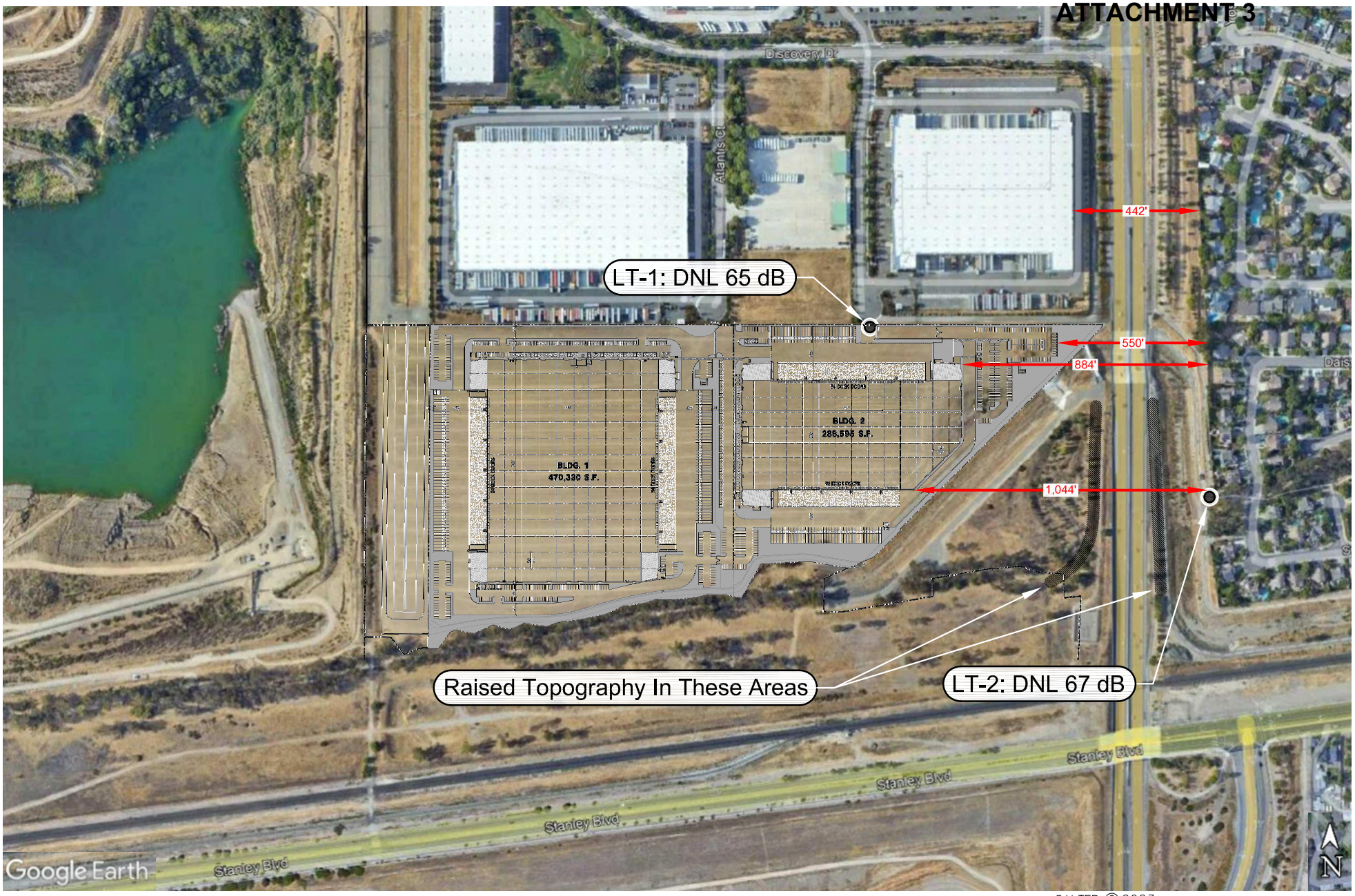
Except in carefully controlled laboratory experiments, a change of only 1 dBA in sound level cannot be perceived. Outside of the laboratory, a 3 dBA change is considered a just-noticeable difference. A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. A 10 dBA change is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse community response.



TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY

FIGURE A1

1107 C 11.25.03



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OAKS BUSINESS PARK – SMP–40 MEASUREMENT LOCATIONS AND MEASURED NOISE LEVELS

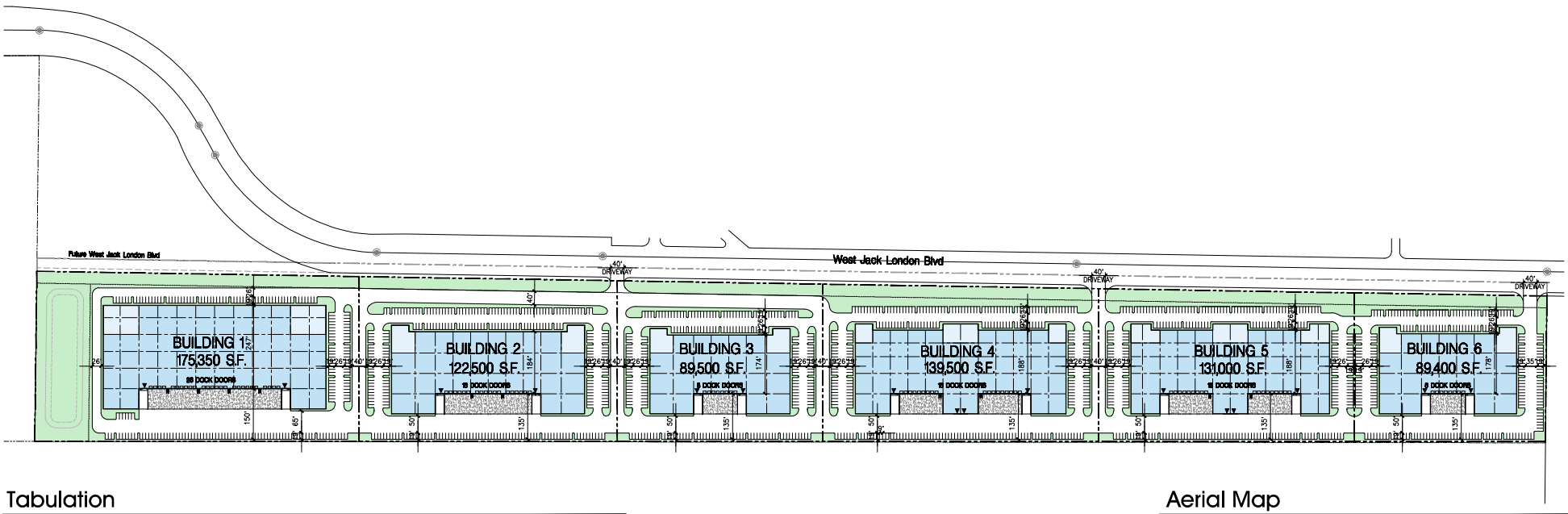
FIGURE 1

Salter # 21–0471

MEV/ECS 02.21.23

Salter
San Francisco
San Jose
Los Angeles
Honolulu
Seattle
www.salter-inc.com

CAUTION: IF THIS SHEET IS NOT 30"X42", IT IS A REDUCED PRINT

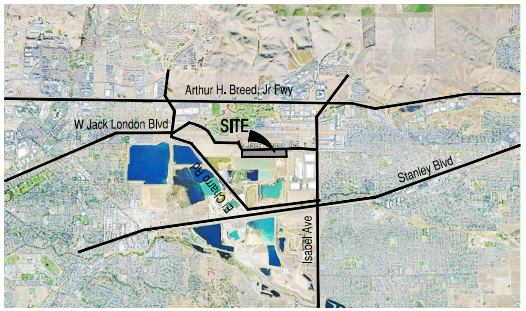


Tabulation

	BLDG.1	BLDG.2	BLDG.3	BLDG.4	BLDG.5	BLDG.6	TOTAL
SITE AREA							
In s.f.	473,671	367,700	285,788	363,649	337,531	256,615	2,084,953 s.f.
In acres	10.87	8.44	6.56	8.35	7.75	5.89	47.86 ac
BUILDING AREA							
Office	20,000	10,000	6,000	10,000	10,000	6,000	62,000 s.f.
Industrial	155,350	112,500	83,500	129,500	121,000	83,400	685,250 s.f.
TOTAL	175,350	122,500	89,500	139,500	131,000	89,400	747,250 s.f.
COVERAGE	37.0%	33.3%	31.3%	38.4%	38.8%	34.8%	35.8%
AUTO PARKING REQUIRED							
Office: 1/300 s.f.	67	33	20	33	33	20	207 stalls
Industrial 1/1,200 s.f.	129	94	70	108	101	70	571 stalls
TOTAL	196	127	90	141	134	90	778 stalls
CLIENT REQUIRED AUTO PARKING							
Standard 2/1000 s.f.	351	245	177	279	256	176	1,484 stalls
AUTO PARKING PROVIDED							
Standard (9' x 19')	204	280	225	287	268	227	1,491 stalls

Note: This is a conceptual plan. It is based on preliminary information which is not fully verified and may be incomplete. It is meant as a comparative aid in examining alternate development strategies and any quantities indicated are subject to revision as more reliable information becomes available.

Aerial Map



Legend

- POTENTIAL OFFICE
- INDUSTRIAL
- LANDSCAPE
- ▼ DRIVE THRU DOOR

north

1" = 120'
0 120' 240' 360'

HPA architecture

Conceptual Site Plan

Jack London Blvd.

Livermore, CA

OMP
OVERTON MOORE PROPERTIES

18831 Bardeen Ave. - Ste. #100
Irvine, CA 92612
(949) 863-1770
www.hparchs.com

August 18, 2023 / Job #20061
Scheme 14

Date: March 5, 2024

To: Ashley Vera

From: Debbie Salgado, PE, QSP/QSD

Subject: **SMP 39/40 Project**

Section 4 of the Engineering Considerations under West Jack London Boulevard is revised to include the following Engineering Consideration:

The widening of West Jack London Boulevard shall include the installation of streetlights. The final layout of the streetlights will be determined by the City Engineer during the development of improvement plans for the street widening.

P.O. Box 79222
Corona, CA 92877

To: City of Livermore Planning Commission

From: Golden State Environmental Justice Alliance

Subject: SMP 38/39/40 Project EIR

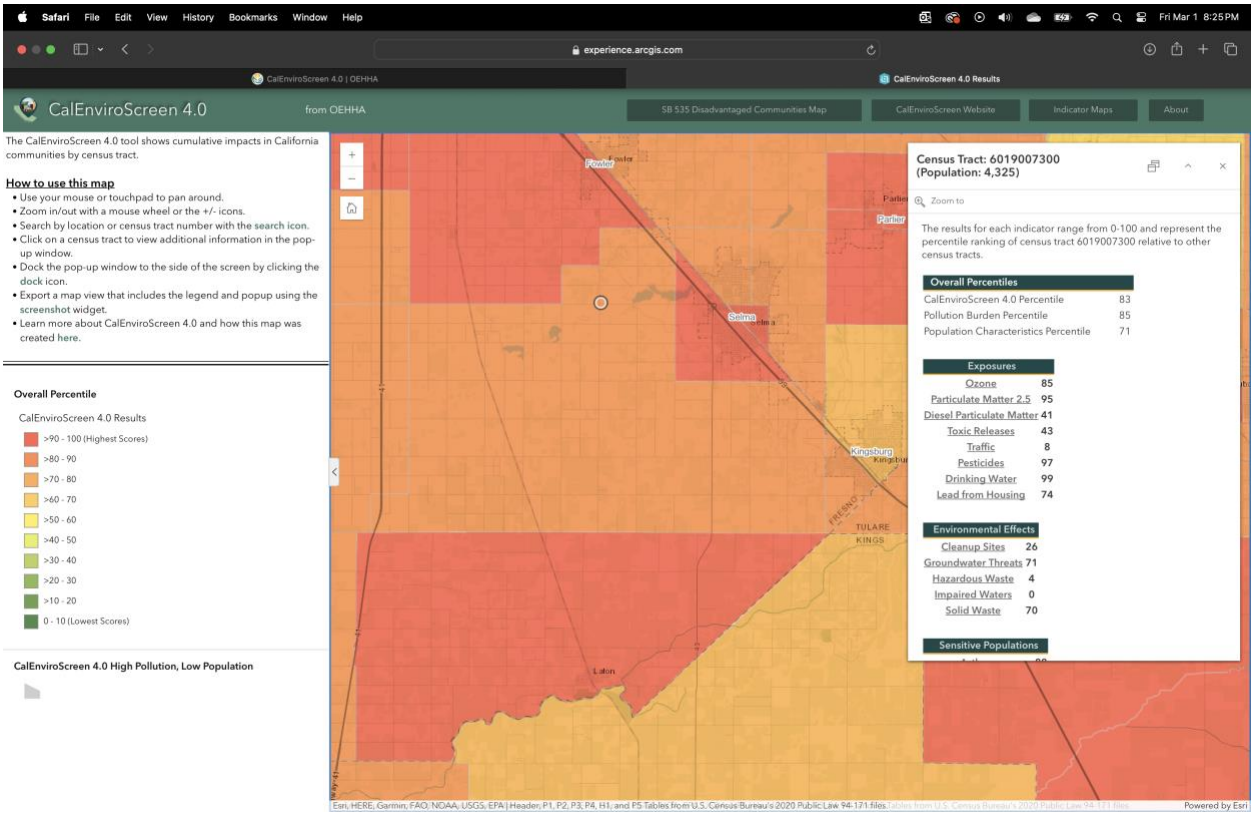
This letter is to serve as further comment in addition to all previously submitted comments and documents by Golden State Environmental Justice Alliance.

CalEnviroScreen Information

CalEnviroScreen is a mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects. CalEnviroScreen uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. The scores are mapped so that different communities can be compared. An area with a high score is one that experiences a much higher pollution burden than areas with low scores. CalEnviroScreen ranks communities based on data that are available from state and federal government sources. CalEnviroScreen is updated and maintained by The Office of Environmental Health Hazard Assessment, on behalf of the California Environmental Protection Agency.

CalEnviroScreen Data on : SMP 38/39/40 EIR Project Location/Area

The above listed project is in census tract **(6001451300)**. Overall, when compared to other census tracts, the project site census tract is in the 83rd percentile regarding pollution. As far as pollution burden is concerned, this census tract is in the 85th percentile. In terms of Ozone, this census tract is in the 85th percentile, Particulate Matter 2.5 98th percentile, Diesel Particulate Matter 41st percentile, Toxic Releases 43rd percentile and Traffic 8th percentile to name a few.



Conclusion

Consider the above referenced information when making this important decision. Realize that you and the citizens of this area face some of the WORST POLLUTION in the entire state of California.

It is the responsibility of the City's elected and appointed officials to make environmentally responsible development decisions. Based on the CalEnviroScreen data, this is more than sufficient evidence of the further air quality impacts that the citizenry of Livermore will continue to encounter with further development of another warehouse. We are not against development, as we believe it is necessary for further economic growth in our current society. Development needs to be conducted with the highest of expectations to ensure the local population does not suffer further air quality burdens.

We stand by our comments and believe the EIR is flawed and should be redrafted and recirculated for public review.

Respectfully Submitted,

Pete Sheehan

Pete Sheehan

GSEJA

Source -
https://experience.arcgis.com/experience/4af93cf9888a424481d2868391af2d82/page/home/?data_id=dataSource_2-1754d6afdb4-layer-9%3A7306

Glossary of Terms

Ozone - Amount of daily maximum 8-hour Ozone concentration

Particulate Matter 2.5 - Annual mean PM 2.5 concentrations

Diesel Particulate Matter - Diesel PM emissions from on-road and non-road sources

Toxic Releases - Toxicity-weighted concentrations of modeled chemical releases to air from
facility emissions and off-site incineration.

Traffic -Traffic density, in vehicle-kilometers per hour per road length, within 150 meters of the census tract boundary.

From: [redacted] Warehouse Project (SMP 40 Project)
Date: Monday, March 4, 2024 5:55:21 PM

You don't often get email from ajay.changaran@lamresearch.com. Learn why this is important

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Ashely

Hope this email finds you well.

My name is Ajay Changaran (Sr Director, GWS at Lam Research). I am responsible for Lam's Global Real Estate portfolio and responsible for all space/land leasing and acquisitions. I had worked with Overton Moore Properties on the leasing of the warehouse (SMP 40 project). I had come and met with the city manager in early 2023 when the landlord was getting ready to submit the applications. I know Tim Cooper who is responsible for the current Lam site in Livermore has been in touch with Brandon Cardwell on this topic as well.

This is a "key" project for Lam and our plans require move in by **1H 2025**. I know the landlord is working with the city for approvals and ultimately to start construction so that Lam can hold these move in dates (please see below the dates we were given as critical dates for this project).

We have been in touch with the Economic Development Manager and City Manager on this key project over the last few months. Tim and I had planned to attend the planning committee meeting tomorrow but due to some last minute conflicts that have come up for us we are unable to attend. We wanted to ensure we request the committee's support of this project and to ensure that we get your support to keep the timelines below so that we can ensure our project doesn't get impacted.

CEQA Process

- Planning Commission 3/6/24
- City Council Meeting 3/26/24
- City Council Meeting 4/8/24 – Second reading and adoptions are fully approved.
- Resolutions available to submit to LAFCO for the application 3/28/24
- City to submit LAFco application on 3/29/24. OMP is preparing all of the documents and exhibits for the City.
- LAFco meeting end of April (This depends on whether PG&E and Cal Trans consents to the LAFCO application). To date, PG&E and Caltrans have not provided their consent letters.
- Final Map goes to City Council for approval in June. Need final map to be approved before we can pull a building permit.

Plan Approvals/Construction Docs

- Received 1st plan check comments from City of Livermore two weeks back.
- After Planning Commission approval, OMP will select fire sprinkler contractor for design build

as well as electrical contractor to order the switch gear (40-50 week lead time).

- OMP re-submits on-site and offsite plans by 3/26/24
- 2nd plan check comments received by City 4/26/24
- OMP submits final plan check comments 5/8/24
- City issues grading permit 6/15/24- After appeal of LAFCO period expires. Grading will take 30 days.
- City issues building permit in July.

Please don't hesitate to reach out if you have any questions. Tim and I will be happy to come and meet with your team next week or based on your availability. We appreciate your help and support of this project for Lam.

Thanks
Ajay Changaran
Sr Director, Global Workplace Solutions
Lam Research

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Confidential – Limited Access and Use

From: Lloyd, Michael
To: Ashley Vera; Planning Web Email
Subject: OMP Oaks Business Park SMP 39 & 40
Date: Tuesday, March 5, 2024 10:39:00 AM
Attachments: image001.png
image002.png
image009.png
image010.png
image012.png
image004.png
image006.png
image008.png

Some people who received this message don't often get email from michael.lloyd@colliers.com. Learn why this is important

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Ashley and Planning commission,

I have been a commercial real estate broker in Livermore for over 35 years and an owner of commercial real estate Industrial buildings and retail buildings in Livermore. I am in favor of OMP Oaks Business Park SMP 39 & 40 which will hopefully have Lam Research as their tenant in a 471,496 SF building. A lot of my Advanced Manufacturing clients that are located in Livermore have business relationships with Lam Research like FM Industries (Owner of two buildings and have over 150 employees) and Teco Technology (Owner of one building) .

Appreciate your support and please reach out to me if you have any questions.

Michael Lloyd, SIOR
Executive Vice President | Northwest Region | Tri-Valley
[redacted]
colliers.com | View Privacy Policy

From: Shaffer, Chris
To: Ashley Vera
Subject: OMP Oaks Business Park
Date: Tuesday, March 5, 2024 11:14:41 AM

You don't often get email from chris.shaffer@nmrk.com. Learn why this is important

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Dear Ashley,

I am writing you tonight to ask for your support of the OMP Oaks Business Park projects at SMP, 39 and 40. I have been a broker for the past 35 years working in the East Bay and specifically the City of Livermore. Over the last 25 years, I have represented Lam Research. Lam purchased the KLA Tencor facility at 1 and 101 Portola Ave(2005) for their growth out of Silicon Valley. Building One at Oaks Business Park will again support their growth for current manufacturing operations and other facilities throughout the United States. Lam's search for a facility was both in and out of the Bay Area and if Building One at Oaks Businees Park was not available Lam would have had to potentially relocate all the existing and new jobs outside of Livermore.

As a broker, growth of the existing Industrial Base of Product is imperative for Companies planning to locate in any Market and especially in Livermore which provide such a diverse City for new employees.

Once completed both SMP 39 and 40 will add nearly 1.5 million ft. of warehouse distribution office light industrial and advanced manufacturing buildings to the market. This was instrumental in the decision for Lam Research to expand in Livermore.

The project is also providing a contribution for access of $750,000 for the Arroyo, Mucho Trail connection and $100,000 over two years towards the Marketing and Branding for the City of Livermore and working in collaboration of the office of innovation and economic development to promote advanced manufacturing in high job generating employment.

Again, I asked that you support this project and recommend moving forward with the City Council. Thank you.

Chris

Chris Shaffer
Senior Managing Director

NEWMARK KNIGHT FRANK

[redacted] and any attachments are intended solely for the [redacted]nt, and may contain information that is confidential, privileged and exempt from disclosure under applicable law. If you are not the intended recipient, you are not permitted to read, disclose, reproduce, distribute, use or take any action in reliance upon this message and any attachments, and we request that you promptly notify the sender and immediately delete this message and any attachments as well as any copies thereof. Delivery of this message to an unintended recipient is not intended to waive any right or privilege. Newmark is neither qualified nor authorized to give legal or tax advice, and any such advice should be obtained from an appropriate, qualified professional advisor of your own choosing.

Allen Matkins

Allen Matkins Leck Gamble Mallory & Natsis LLP
Attorneys at Law
865 South Figueroa Street, Suite 2800 | Los Angeles, CA 90017-2543
Telephone: 213.622.5555 | Facsimile: 213.620.8816
www.allenmatkins.com

Margaret R. Akerblom
E-mail: makerblom@allenmatkins.com
Direct Dial: 213.955.5623 File Number: 394720.00001/4876-3208-5931.3

Via Electronic Mail

March 5, 2024

Planning Commission
City of Livermore
1016 S. Livermore Ave.
Livermore, CA 94550

Re: Public Comment on SMP-39 and SMP-40 Project
Planning Commission Meeting March 5, 2024

Planning Commission of the City of Livermore:

We represent El Charro Spur LLC, which owns the approximately 69-acre parcel ("**ECS Property**") directly south of and abutting the SMP-40 property, which is the subject of the proposed SMP-39 and SMP-40 project before the Planning Commission on March 5, 2024. On behalf of El Charro Spur LLC, we submit this public comment regarding the SMP-39/SMP-40 project. As explained in more detail below, the SMP-39/SMP-40 project proposes in part to construct a public trail along the Arroyo Mocho that will create a significant health and safety hazard that was not acknowledged or studied in the project's Environmental Impact Report (SCH# 2023010091) ("**EIR**") nor addressed in the project's conditions of approval.

Enclosed with this letter is a copy of Exhibit C to the proposed Development Agreement for SMP-40, which we have annotated for illustrative purposes. Exhibit C depicts that the SMP-39/SMP-40 project will include construction of a public trail running along the southern and western property lines of the SMP-40 property. This proposed public trail on the SMP-40 property proposes to continue at the southeast corner of the SMP-40 property onto the Alameda County Flood Control and Water Conservation District (Zone 7) property abutting the SMP-40 property's eastern property line, proceeding northeasterly, along the course of Zone 7's present maintenance road, which is not currently accessible to the public. Evidently, the proposal entails opening the Zone 7 maintenance road for the public's use as a trail. The proposed public trail would follow the course of the Arroyo Mocho, which passes through the Zone 7 property and along the northern edge of the ECS Property.

Exhibit C indicates that a chain link fence will be constructed along the northern and southern edges of the trail segment on the SMP-40 property. When the trail reaches the Zone 7 property, the northerly fence will connect to an existing Zone 7 fence that lies north of the

maintenance road. However, Exhibit C shows that the southerly fence will simply end at the Zone 7 property. This means that, if the path is constructed as shown in Exhibit C, members of the public using the trail would be able to simply leave the Zone 7 portion of the proposed path and enter the Arroyo Mocho which is immediately adjacent south of the path, without restriction. This in turn would permit members of the public to head west through the Arroyo Mocho onto El Charro Spur's private property without restriction, and further west, access the active mining operations of Vulcan Materials on the properties north and west of the ECS Property. The public cannot currently access these areas because the Zone 7 property, and maintenance road, are fenced off. The annotations on Exhibit C that we have added are intended to show the locations of the ECS Property, Zone 7 property, and mining properties.

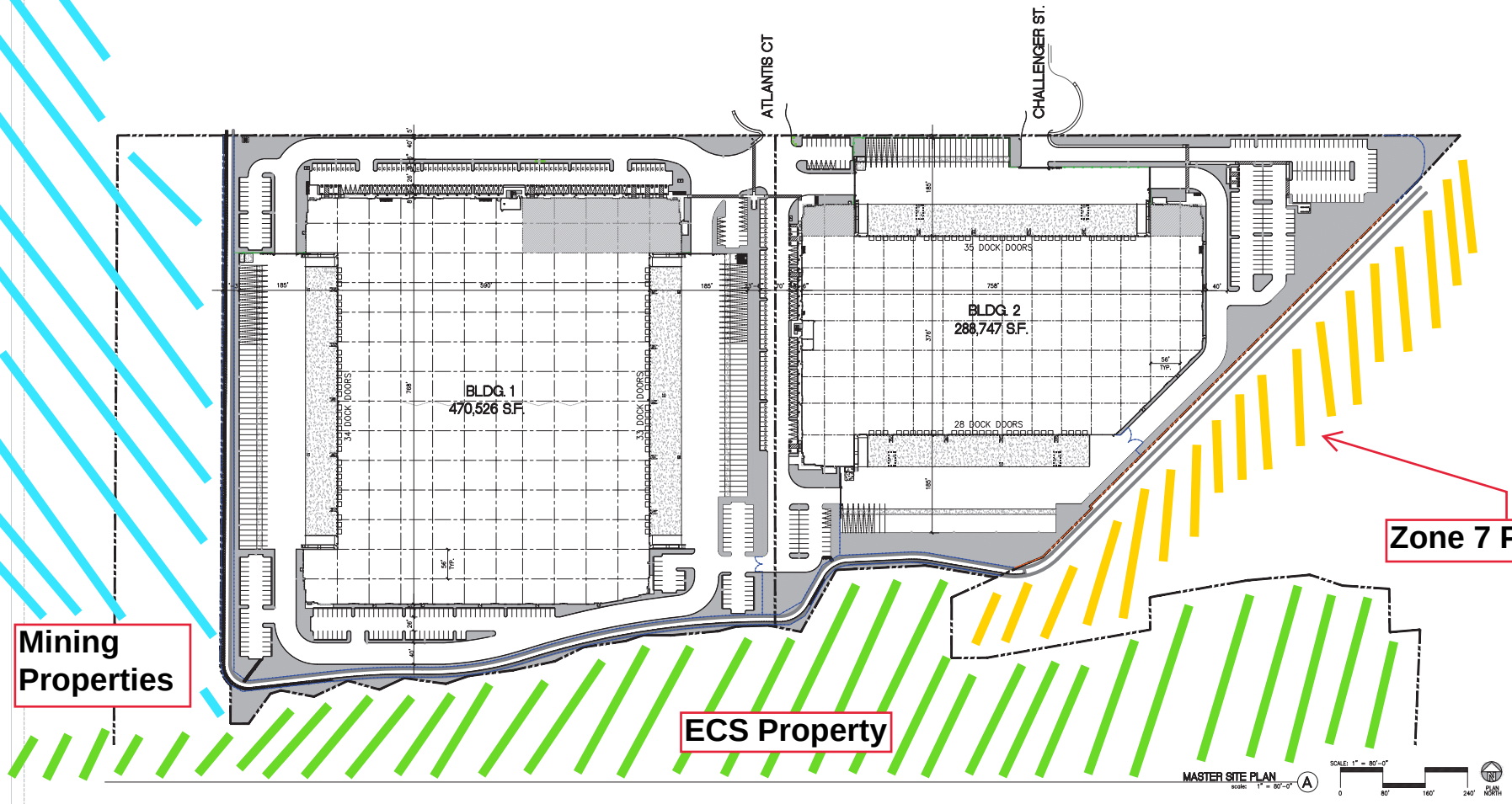
Providing the public unfettered direct access to the Arroyo Mocho, private property and an active mining operation, both in the dry months and in the rainy season when it regularly carries high water volumes, are health and safety hazards that must be considered as part of the SMP-39/SMP-40 project. However, the EIR does not address the fact that the proposed trail may be creating this dangerous public safety hazard. The EIR discusses the potential routes for the trail (see, e.g., EIR p. 3-22), but it does not analyze the risk posed by providing public access to the Arroyo Mocho and mining properties to the west nor what safety features the trail would have, such as fencing, to protect members of the public using it. The SMP-40 Development Agreement and the SMP-39/SMP-40 project conditions of approval also do not address how this safety issue will be mitigated. At minimum, the conditions of approval should require the project applicant to work with Zone 7 to ensure that a fence is constructed on the Zone 7 property south of the trail so that the fence south of the path on the SMP-40 property can connect to it. The ECS Property owner and the owner of the mining properties cannot themselves block access to their properties from the proposed public path because they cannot construct obstructions within the Arroyo Mocho. That is why public access must be contained continuously along the path on the Zone 7 property.

We ask that the Planning Commission consider the safety issues raised by this letter when evaluating the SMP-39/SMP-40 project and recommend appropriate conditions and mitigation measures to address them.

Regards,

Margaret R. Akerblom

MRA
Enclosure



NEW METAL FENCE AND GATE

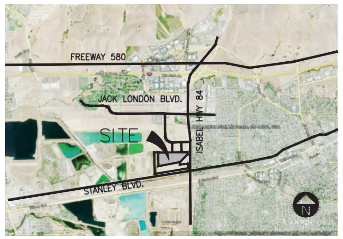
EXISTING CHAIN LINK FENCE

NEW CHAIN LINK FENCE AND GATE

SITE PLAN GENERAL NOTES

- CONCRETE PAVING, SEE "C" DRWGS. FOR THICKNESS
- STANDARD PARKING STALL 9' X 18' (16' WITH 2' OVERHANG)
- STANDARD PARKING STALL W/ EVCS INSTALLED
- STANDARD PARKING STALL W/ CONDUITS ONLY
- TRAILER PARKING (10' X 53')
- TRAILER PARKING W/ CONDUITS ONLY
- LANDSCAPED AREA
- NON-ACCESSIBLE PATH
- COMPACT PARKING STALL 9' X 16' (14' WITH 2' OVERHANG)
- ACCESSIBLE PARKING STALL (9' X 18') ACCESSIBLE AISLE SEE DETAIL 11/AD.1
- ACCESSIBLE PARKING (VAN) STALL (9' X 18') + 8' W/ ACCESSIBLE AISLE
- PATH OF TRAVEL. MINIMUM WIDTH TO BE 4', SLOPE NOT TO EXCEED 5% IN THE DIRECTION OF TRAVEL AND CROSS SLOPE NOT TO EXCEED 2%, SEE CIVIL FOR GRADING PLAN

VICINITY MAP



PROJECT DATA

	BLDG. 1	BLDG. 2	TOTAL
SITE AREA	1,047,181	737,934	1,784,745 s.f.
	24.04	16.93	40.97 ac
BUILDING AREA			
Office	30,000	13,000	43,000 s.f.
Warehouse	440,526	275,747	716,273 s.f.
TOTAL	470,526	288,747	759,273 s.f.
COVERAGE(45% Max.)	44.9%	39.1%	42.5%
AUTO PARKING REQUIRED			
Office: 1/300 s.f.	100	44	144 stalls
Other: 1/1,000 s.f.	368	230	598 stalls
TOTAL	468	274	742 stalls
EV REQUIRED			
EV Capable + EVCS (20% of total)	94	56	150 stalls
- EV Capable w/ conduits only(10% of total)	[47]	[28]	stalls
- EVCS (10% of total)	[47]	[28]	stalls
~ Standard EVCS	44	26	
~ ADA EV Parking w / EVCS (9' x 20' + 5' Aisle)	1	1	
~ ADA EV Van Parking w / EVCS (12' x 20' + 5' Aisle)	1	1	
~ Ambulatory	1	1	
AUTO PARKING PROVIDED			
Standard (9'x 18')	186	187	373 stalls
Compact (8'x 16') 30% of total max	112	0	112 stalls
Accessible parking (9' x 18')	5	5	10 stalls
Accessible Van (9' x 18' +8' aisle)	4	3	7 stalls
EV Capable + EVCS (20% of total)	94	56	150 stalls
- EV Capable w/ conduits only(10% of total)	[47]	[28]	stalls
~ Standard EV Capable	17	16	
~ Trailer w / conduits	30	12	
- EVCS (10% of total)	[47]	[28]	stalls
~ Standard EVCS	44	26	
~ ADA EV Parking w / EVCS (9' x 20' + 5' Aisle)	1	1	
~ ADA EV Van Parking w / EVCS (12' x 20' + 5' Aisle)	1	1	
~ Ambulatory	1	1	
Standard Trailer (10' x 53')	67	23	90 stalls
TOTAL	468	274	742 stalls
BIKE RACKS REQUIRED/PROVIDED			
Long-term (5%)	24	14	38
Short-term (5%)	24	14	38
ZONING ORDINANCE FOR CITY			
Proposed Zoning Designation - Industrial (IC)			
SETBACKS			
Building			
Isabel Rd / 84 - 45' (increased to allow 40' max. ht.)			
New Interior St. - 30' (increased to allow 40' max. ht.)			
Rear/Side - None			
Landscape			
All required Yards shall be landscaped. If Parking lot is provided betw een building and street reduce LS at street by up to 10' and place removed LS at building adjacent to parking.			
MAXIMUM BUILDING HEIGHT ALLOWED			
40'			
MAXIMUM BUILDING HEIGHT REQUESTED			
50' (see 1-DAB-A3.1 & 2-DAB-A3.1 for proposed building height)			

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK BUILDING 1

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	4STEL
MECHANICAL	ACIES
PLUMBING	ACIES
ELECTRICAL	ACIES
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: MASTER SITE PLAN

Project Number: 19177
Drawn by: DZ
Date: 11/21/2023
Revision:

Sheet: A1.0

From: Karl Anderson
To: Ashley Vera; Planning Web Email
Subject: OMP Oaks business Park projects at S&P, 39 and 40
Date: Tuesday, March 5, 2024 11:24:34 AM

You don't often get email from karl.anderson@tecotechnology.com. Learn why this is important

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

As a local small business owner, I am writing this email in support of OMP Oaks business Park projects at S&P, 39 and 40. TECO Technology moved to our 6500 National Drive location in Livermore just over 2 years ago and as a current Lam Research supplier, we would like for this project to go forward as it provides convenient logistical proximity to this global manufacturing entity. With the trend in high technology manufacturing going the way of global outsourcing, it is important to keep companies like Lam local so small businesses like TECO can continue to grow and expand.

Thank you in advance for your consideration.

Cordially,
Karl Anderson
President
TECO Technology

DocuSign Envelope ID: FA4B4EDF-EA7E-412C-BB1A-6D66AD13828C

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WHEN RECORDED MAIL TO:

City Clerk
City of Livermore
1052 South Livermore Avenue
Livermore, CA 94550

(Space Above This Line Reserved for Recorder's Use Only)

PRE-ANNEXATION AND DEVELOPMENT AGREEMENT

BY AND BETWEEN

THE CITY OF LIVERMORE

AND

LIVERMORE INDUSTRIAL PARTNERS 39, LLC; AND SMP-39, LLC

DocuSign Envelope ID: FA4B4EDF-EA7E-412C-BB1A-6D66AD13828C

PRE-ANNEXATION AND DEVELOPMENT AGREEMENT (DA 21-001)
[SURFACE MINING PERMIT (SMP) 39/40 PROJECT – SMP 39 PROPERTY]

This Pre-annexation and Development Agreement ("Agreement") is entered into on _____, 2024 between the City of Livermore, a municipal corporation ("City"), Livermore Industrial Partners 39, LLC ("Developer") and SMP-39, LLC ("Seller"). The City, Developer, and Seller are sometimes referred to below each individually as a "Party" and collectively as the "Parties."

RECITALS

This Agreement is based on the following facts:

A. The City has the authority to enter into a development agreement under Government Code section 65864 *et seq.* ("Development Agreement Statutes") and Chapter 9.04 of the Livermore Development Code to vest certain rights to the Developer and to meet certain public purposes of the local government.

B. Seller owns approximately +/- 51.9 acres located on Jack London Boulevard, west of Oaks Business Park and south of Livermore Municipal Airport (commonly referred to as "SMP 39" or, for purposes of this Agreement, "SMP 39 Property"), which is the subject of this Agreement. SMP-40, LLC, an affiliate of Seller owns approximately +/- 41 acres (commonly referred to as "SMP 40". The aforementioned SMP numbers reference the Surface Mining Permit (SMP) numbers applicable to each site. The Surface Mining Permits for each of the sites were approved by Alameda County in 2004 to allow for the extraction of sand and gravel (i.e., aggregate) within the sites; however, aggregate mining has not occurred within either of the sites.

C. Four additional parcels that total approximately +/- 12.9 acres are located east of SMP 40 and are included in the overall project area (as set forth in more detail in Recital F and referred to as the "Additional Annexation Only Parcels"). The City has chosen to include the parcels in the proposed annexation area for purposes of efficiency and to create logical boundaries.

D. Seller owns certain real property consisting of one parcel (Assessor Parcel Number (APN) 904-0003-001-04) and is situated in Alameda County, within the City of Pleasanton's Sphere of Influence ("SOI") and the City of Livermore's South Livermore Urban Growth Boundary ("UGB"). The SMP 39 Property is zoned Agricultural by Alameda County and has a County General Plan designation of Industrial. SMP 39 has a City of Livermore General Plan designation of Open Space/Sand and Gravel. The Developer is required to change the SOI for SMP 39 from the City of Pleasanton to the City of Livermore and to annex SMP 39 into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

DocuSign Envelope ID: FA4B4EDF-EA7E-412C-BB1A-6D66AD13828C

The SMP 39 Property is described more specifically in the attached **Exhibit A**. The SMP 39 Property does not include property located within SMP 40 or the Additional Annexation Only Parcels, as described in Recitals D (above) and F (below). Development of the SMP 39 Property is described in Recitals G and H, below, and set forth in more detail in **Exhibit B** (SMP 39 Development Description) and **Exhibit C** (Conceptual Site Plan for the SMP 39 Property). Developer is in contract to purchase SMP 39 Property from Seller, and under that contract has the primary rights and obligations regarding application for and funding the Entitlements, described below in Recital I, for the SMP 39 Property as set forth in this Agreement. Developer is required to annex the SMP 39 Property into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

E. SMP-40 LLC, an affiliate of Seller, owns certain real property consisting of one parcel (APN 904-0010-002-02) and is generally located south of Oaks Business Park, at the south end of Atlantis Street and Challenger Street ("SMP 40" or "SMP 40 Property"). It is situated in Alameda County and is within the City of Livermore's SOI and the City of Livermore's South Livermore UGB. SMP 40 is zoned Agricultural by Alameda County with a County General Plan designation of Industrial. SMP 40 has a City of Livermore General Plan designation of Open Space/Sand and Gravel.

F. Four additional parcels (APNs 904-0010-002-03, -5, -7, and -8) are within unincorporated Alameda County, the City of Livermore SOI, and the City of Livermore South Livermore UGB ("Additional Annexation Only Parcels"). APN 904-0010-002-03 is an approximately 0.20-acre parcel owned by the Pacific Gas and Electric Company (PG&E) and is developed with existing PG&E infrastructure. APN 904-0010-002-05 is an approximately 5.76-acre parcel owned by the Zone 7 Water Agency and serves as a flood control channel. APN 904-0010-002-07 is an approximately 1.57-acre parcel owned by the California Department of Transportation (Caltrans) and is currently undeveloped. APN 904-0010-002-08 is an approximately 5.46-acre parcel owned by the City of Livermore and is currently undeveloped with scattered trees throughout the parcel. The City of Livermore General Plan designates the Additional Annexation Only Parcels as Open Space/Sand and Gravel. The Additional Annexation Only Parcels are also within the East County Area Plan of the Alameda County General Plan, which designates the parcels as Industrial. The parcels are zoned Agriculture by Alameda County. The Developer is required to annex the Additional Annexation Only Parcels into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

G. Due to their interrelated nature, activities involving SMP 39, SMP 40, and the Additional Annexation Only Parcels (together, the "SMP 39/SMP 40 Project") are considered in a single Environmental Impact Report ("EIR") (SCH #2023010091) for purposes of the City's environmental review under the California Environmental Quality Act ("CEQA"). The SMP 39/SMP 40 Project evaluated in the EIR includes a SOI amendment for SMP 39 and a General Plan Amendment, Pre-zoning and Annexation, Zoning Map Amendment/ Planned Development, Vesting Tentative Subdivision Maps, Pre-Annexation Agreements, and Development Agreements for SMP 39 and SMP 40. A Site Plan Design Review entitlement is also included for SMP 40. The SMP 39/SMP 40 Project evaluated in the EIR also includes annexation of the Additional Annexation Only Parcels.

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H. SMP 39 and SMP 40 shall be developed with light industrial development uses consistent with the City's *Low-Intensity Industrial* General Plan designation, including research and development, professional and administrative offices, experimental and testing laboratories, manufacturing of electronic and other high-end complex products, a limited amount of warehouse and distribution, and similar uses as stated in PD-I 22-001, the zoning for the property (**Exhibit D**). The SMP 39/SMP 40 Project includes (i) on SMP 39, approximately six light industrial buildings consisting of up to 755,500 square feet (sf) of development and, (ii) on SMP 40, two light industrial buildings consisting of up to 759,275 sf of development. **Exhibit C** shows the conceptual site plan for the SMP 39 Development. Developer and City intend that separate Pre-annexation and Development Agreements will be entered into for SMP 39 and SMP 40, respectively, in order to segregate the rights and obligations related to each property. This Agreement, as reflected herein, addresses the SMP 39 Property and no other property.

I. The Developer has applied for the following entitlements ("Entitlements") for the SMP 39 Property from the City of Livermore as required under the Livermore Development Code, to be vested in accordance with this Agreement pending a SOI change and annexation of the SMP 39 Property into the City of Livermore:

- General Plan Amendment (GPA 21-001) to change the City of Livermore designation of SMP 39 and SMP 40 from *Open Space/Sand and Gravel* (OSP/S&G) to *Low-Intensity Industrial* (LII) and to change the City of Livermore designation of the Additional Annexation Only Parcels from *Open Space/Sand and Gravel* (OSP/S&G) to *Parks, Trailways, Recreation Areas* (OSP) (the "General Plan Amendment" or "GPA");

- Pre-zoning of SMP 39 and SMP 40 (DCA 21-005, ZMA 21-002 and PD-I 22-001) by (i) amending the City's zoning map to rezone SMP 39 and SMP 40 to the *Planned Development - Industrial* (PD-I) 22-001 zoning district, which includes the "Planned Development Standards" described more fully in attached **Exhibit D**; and (ii) pre-zoning the Additional Annexation Only Parcels to *Open Space Flood Plain* (the "Prezoning"). The Prezoning shall become effective with respect to SMP 39, SMP 40, and the Additional Annexation Only Parcels upon their annexation to the City in accordance with California Government Code section 65859;

- SOI Amendment and Annexation (APZ 21-003) authorizing submittal of an application to the Alameda County Local Agency Formation Commission ("LAFCo") to (i) include SMP 39 within the City of Livermore's SOI (and remove SMP 39 from the City of Pleasanton's SOI); and (ii) annex SMP 39, SMP 40, and the Additional Annexation Only Parcels from Alameda County into the City;

- Vesting Tentative Tract Map 8656 (SUB 21-008) authorizing the creation of six development parcels for the SMP 39 Property, (the "Tentative Map"); and

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- This Pre-annexation and Development Agreement (DA 21-001) to vest certain rights to the Developer and to provide specific public benefits that meet certain public purposes of the local government.

In addition to the above listed Entitlements, an EIR (SCH #2023010091) for the SMP 39/SMP 40 Project has been prepared in accordance with CEQA to evaluate potential impacts to the environment of the SMP 39/SMP 40 Project, including the Entitlements.

J. The City Council finds that the SMP 39/SMP 40 Project is in the public interest; will establish land uses compatible with the physical nature of the SMP 39 Property and the surrounding area; will generate light industrial development and activity to meet local and regional goals; and will provide certain substantial public benefits and help attain certain other public objectives including, without limitation: (i) including construction of and a $750,000 financial contribution toward off-site trail improvements, creating connections to the City's existing trail networks as identified in the *Active Transportation Plan* ("ATP"); and (ii) a commitment to the funding of $100,000, payable over a two-year term in increments of $50,000 per year, to facilitate uses that support an innovation-driven economy, generate high wage jobs, or generate substantial sales tax revenues as determined by the Director of Innovation and Economic Development. Items (i) through (ii) above, and as described more fully in Section 4, are collectively referred to as the "Public Benefits").

K. This Agreement will promote and encourage the SMP 39 Development by providing the Developer and its creditors with a greater degree of certainty of the Developer's ability to expeditiously and economically complete the development effort for the SMP 39 Property, and the Parties agree that the consideration to be received by the City pursuant to this Agreement and the rights secured to the Developer hereunder constitute sufficient consideration to support the covenants and agreements of the City and the Developer. By entering into this Agreement, the City desires to allow the Developer to design, apply for, and if approved to develop the SMP 39 Property pursuant to this Agreement, the land use ordinances, rules, regulations, and policies applicable on the "Effective Date," as defined in Section 2, and to vest in Developer, upon annexation, to the fullest extent possible under the law, development entitlements in order to complete the SMP 39 Development, consistent with Section 5(c) of this Agreement.

L. The SMP 39 Development has been extensively reviewed and considered by the City and its officers, agencies, and departments. The proposed uses have been found to accommodate the City's recommendations and suggestions in order to protect the public's interest and to enhance the desirability, from the public's perspective, of the SMP 39 Development.

M. The City conducted duly noticed public hearings on this Agreement pursuant to Government Code section 65867 and Livermore Development Code sections 9.04.040 and 9.04.050 and found that the provisions of this Agreement and its purposes are consistent with the objectives, policies, general land uses, and programs specified in the City's General Plan and Livermore Development Code.

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N. This Agreement was adopted by ordinance of the City Council on _____, 2024 and approved upon a second reading on _____, 2024 after notice and public hearings before the Planning Commission and City Council, and after City Council certification of an EIR in accordance with CEQA, Public Resources Code section 21000 *et seq*.

NOW, THEREFORE, the City and Developer hereby agree that the aforementioned recitals are true and correct and incorporated by reference as fully set forth below, and further agree as follows:

1. The Property. The SMP 39 Property is described in **Exhibit A**, attached hereto. The SMP 39 Development includes six light industrial buildings consisting of up to 755,500 sf of development. A comprehensive description of the SMP 39 Development is in attached **Exhibit B** (SMP 39 Development Description) and **Exhibit C** (Conceptual Site Plan for the SMP 39 Property). A future Site Plan Design Review land use entitlement will be required to be approved prior to the development of SMP 39.

2. Effective Date. The effective date of this Agreement (the "Effective Date") is the later of (a) thirty (30) days after the date the Ordinance approving this Agreement is adopted by the City Council and attested by the City Clerk, or (b) if a referendum petition is timely and duly circulated, filed and qualified by the Elections Official, the date the election results on the ballot measure by City voters approving this Agreement are certified by the City Council in the manner provided by the Elections Code. This Agreement shall be executed by the City within ten (10) days after the Effective Date and recorded as provided in Government Code Section 65868.5.

3. Term. The term of this Agreement is ten (10) years ("Term"), beginning on the date annexation proceedings for SMP 39, SMP 40, and the Additional Annexation Only Parcels are complete ("Annexation Date"). The Agreement may be extended as provided for in the Development Agreement Statutes and the Livermore Development Code, subject to the written consent of the City and Developer. The terms of the Entitlements shall be automatically extended such that the Entitlements remain in effect for any extended Term.

   Following the expiration of the Term, or the earlier completion of development of the SMP 39/SMP 40 Project and all of Developer's obligations in connection therewith, or the failure of SMP 39, SMP 40, or the Additional Annexation Only Parcels to be annexed into the City of Livermore in accordance with Section 5(g) of this Agreement, this Agreement shall be terminated and of no further force and effect, subject, however to the provisions of Section 10 and Section 16.

4. Developer Obligations; Schedule of Performance. The Developer shall comply with the requirements set forth in the Schedule of Performance and tasks listed below. The Schedule of Performance is subject to revision from time-to-time as mutually agreed upon in writing between the City and the Developer, which shall be accomplished through a separate document and without the need to amend this Agreement. The City Manager shall have the authority to approve on behalf of the City any revision to a date in the Schedule of Performance that he or she deems appropriate, provided that the

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revision extends the performance deadline for a time period no longer than one year. Developer shall comply with the following Schedule of Performance:

a. Developer shall initiate and pay all costs associated with timely applications for the SOI amendment for SMP 39 and the annexation for SMP 39, SMP 40, and the Additional Annexation Only Parcels, which shall be reviewed by the appropriate decision-making bodies for each parcel, which may include the City of Pleasanton, Livermore City Council and Alameda County LAFCo.

b. The SMP 39 Development includes installation of an Emergency Vehicle Access and Storm Drain main on City owned land subject to FAA regulations and requirements. The use of the City owned land shall be subject to additional requirements including but not limited to FAA approval, Consistency Determination, compensation for use of City land, appraisals, and additional mapping. All actions necessary for the project's use of City owned land shall be processed prior to the filing of the Final Map for SMP 39.

c. Developer shall pay a $100,000 cash contribution to the City of Livermore Office of Innovation and Economic Development Department for marketing SMP 39 for the desired land uses identified in PD-I 22-001.

    i. Prior to issuance of the first building permit for the SMP 40 Property, the Developer shall pay an initial $50,000 cash contribution to the City of Livermore Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001.

    ii. Developer shall pay a second $50,000 contribution to the City of Livermore Office of Innovation and Economic Development Department no later than one (1) year following the receipt of the initial $50,000 contribution, to be used toward further marketing SMP 39 for the desired land uses identified in PD-I 22-001.

    iii. The SMP 40 Development Agreement contains the same contribution requirements in Section 4(b) of that agreement. For avoidance of doubt, there is a total $100,000 obligation between the two Development Agreements and a payment under one Development Agreement shall automatically satisfy this obligation under the other Development Agreement.

    iv. The Development Agreement for the SMP 40 property (DA 23-002) describes the Developers requirements related to the off-site trail improvements. In the event that the development of SMP 39 proceeds in advance of the development of SMP 40, the Developer is required to amend this Development Agreement and DA 23-002 prior to issuance of any building permit for SMP 39, in accordance with Livermore Development Code Chapter 9.04.

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5. Vested Development Rights. Subject to annexation into the City and the terms of this Agreement, SMP 39 Development shall vest in accordance with this Agreement, and the Developer has the right to develop and use the SMP 39 Property in accordance with:

    a. The City's General Plan and the Livermore Development Code in effect on the Effective Date and the Entitlements in effect on the Annexation Date;

    b. All other City policies, ordinances, resolutions, rules, regulations, and standards applicable to development or use of the SMP 39 Property on the Effective Date, except that Developer shall:

        (1) Pay the processing and development impact fees applicable City-wide that are in effect at the time the fees are paid. Payment for said fees shall be made prior to issuance of any building permits.

        (2) Comply with Building Code requirements in effect on a City-wide basis at time of Building permit submittal;

        (3) Comply with construction and technical design standards or specifications for public improvements that are applicable City-wide at time of Building permit submittal;

        (4) Comply with changes in City laws, regulations, plans, or policies applicable City-wide, the terms of which are found by the City Council, based on substantial evidence, to be necessary to protect members of the public from a condition dangerous to public health or safety;

        (5) Comply with a change in City law, regulations, plans, or policies that is:

            i. Specifically mandated by state or federal law, or by any regional governmental agency that has legal authority over the City under state law or a joint powers agreement; or

            ii. A result of or in response to state or federal law, or regional agency action, made necessary in order for the City to avoid losing or not receiving substantial funding or other substantial public benefits or facilities that would be available to the City only if it makes such a change; or

            iii. Specifically mandated by, or necessary for compliance with or implementation of, the terms of any permit, entitlement, or other authorization necessary for the development of the Property that is issued or granted to the City, County, and/or Developer by any federal, state or regional agency;

        (6) Following any subsequent environmental review, comply with required mitigation measures; and

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d. In the event that Developer applies for any subsequent entitlements, including but not limited to a Site Plan Design Review for the SMP 39 Property, subsequent entitlements shall be subject to the City's ordinances, rules, regulations and policies in effect on the date of submittal of the subsequent entitlements.

e. If there is any inconsistency between this Development Agreement and a permit or entitlement issued for the SMP 39 Property, this Development Agreement shall control.

f. Developer acknowledges that execution of this Agreement by the City does not constitute approval of any required permits, applications, or allocations, and in no way limits the discretion of the City in the permit, allocation, and approval process in accordance with the limitations set forth herein.

g. Upon annexation of SMP 39 and 40, Developer agrees that all mining permits previously granted by Alameda County on the SMP 39 and SMP 40 properties shall be forfeited, and no mining operations shall occur on the SMP 39 Property or the SMP 40 Property. No later than 60 days from the date LAFCo approves annexation of the SMP 40 Property, subject to any extension granted by the City, Developer shall coordinate with Alameda County to complete any final actions required to remove the mining permits and all associated permissions related to mining operations from the SMP 39 and SMP 40 properties.

h. The Parties agree that the obligations set forth in this Agreement are conditioned upon the passing of a City Council Resolution authorizing submittal of an application to LAFCo for SOI and Annexation, the filing of an application with LAFCo to modify the SOI for SMP 39, annex SMP 39, SMP 40 and the Additional Annexation Only Parcels, requesting waiver of notice, hearing and protest from LAFCo, subject to LAFCo approval. Furthermore, the Parties also agree that the obligations set forth in this Agreement are conditioned upon the approved and finalized SOI modification and annexation of the SMP 39 and SMP 40 Properties and the Additional Annexation Only Parcels into the City of Livermore. Upon approval of the SMP 39/SMP 40 Project by the City, the City agrees to act in good faith, in collaboration with the Developer, to support and timely process the annexation application with LAFCo. The Developer shall be responsible for all costs associated with annexation, including but not limited to preparation of the LAFCo application, LAFCo application submittal fees, and any other City-related annexation fees. Annexation of SMP 39, SMP 40, and the Additional Annexation Only Parcels shall be completed no later than 18 months from the Effective Date of this Agreement, unless extended by written agreement of the Parties. If the annexation is not completed within this time period, subject to any agreed upon extension, the Agreement is null and void.

i. Developer shall not dispute or challenge the validity of the Pre-annexation and Development Agreement for SMP 40. Any legal challenge to the validity or enforceability of the Pre-annexation and Development Agreement for SMP 40 shall constitute a legal challenge to the Pre-annexation and Development Agreement for SMP 39 and the SMP 39/SMP 40 Project. In the event of a valid legal challenge, this

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Agreement shall be terminated after all appeals have been exhausted before a final court of judgment, or issuance of a final court order directed to the City to set aside, withdraw or abrogate the City's approval of this Agreement or the Pre-annexation and Development Agreement for SMP 40.

7. Periodic Review. Review of this Agreement shall be made annually, consistent with Government Code section 65865.1 and Livermore Development Code Chapter 9.04.

8. Amendments. The Agreement may be amended in writing by the Parties, by mutual agreement, consistent with the procedures set forth in the Development Agreement Statutes and the Livermore Development Code, as they are amended from time-to-time.

9. Force Majeure. The Term of this Agreement shall be extended by, and the performance by any Parties of their obligations hereunder (other than for payment of money) shall be excused during, any period of "Force Majeure" as hereinafter defined. "Force Majeure" means a delay caused by any labor disputes or strikes, labor or material shortages or embargoes, pandemic, fire, unusual delay in transportation, earthquakes, floods, tornadoes or extreme wind or other adverse weather conditions not reasonably foreseeable by Developer, or material adverse underground conditions not reasonably foreseeable by Developer.

10. Remedies for Default. If a Party is in default under this Agreement, another Party may pursue one or more of the following courses of action after providing 30 days' written notice to the purportedly defaulting Party (or such longer period as may be required to cure the default, so long as such Party commences the cure within such 30-day period and diligently pursues the cure to completion): (a) waive the default; (b) in the City's case, pursue administrative remedies, including denial or otherwise withholding issuance of building permits, certificates of occupancy, or other approvals; (c) pursue judicial remedies; or (d) terminate this Agreement. Any purported default by a Party hereunder shall be subject to, and tolled by, any event of Force Majeure that prevents such Party from performing the act necessary to avoid or cure such purported default. Any such tolling shall end at the termination of the event of Force Majeure.

11. Termination. This Agreement shall terminate upon the earlier of (i) expiration of the Term, or (ii) in the event that SMP 39, SMP 40, and the Additional Annexation Only Parcels are not annexed into the City in accordance with Section 5(g) of this Agreement (iii) when the SMP 39/SMP 40 Project has been completed and all of Developer's obligations have been fully satisfied as reasonably determined by the City, or (iv) after all appeals have been exhausted before a final court of judgment, or issuance of a final court order directed to the City to set aside, withdraw or abrogate the City's approval of this Agreement or any material part thereof, or the Pre-annexation and Development Agreement for SMP 39 or any material part thereof. Upon termination of this Agreement as to the SMP 39/SMP 40 Project, at the request of Developer, the City shall record a Notice of Termination for each affected parcel in a form satisfactory to the City Attorney in the Office of the Alameda County

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Recorder. In the event this Agreement is terminated, neither party shall have any further rights or obligations hereunder except for those obligations of Developer set forth in Section 12 (No Damages Relief) and Section 16 (Legal Action; Attorneys' Fees).

12. Mortgagee Protection.

i. This Agreement shall not prevent or limit Developer in any manner, at Developer's sole discretion, from encumbering the Property or any portion thereof or any improvement thereon by any mortgage, deed of trust, or other security device securing financing with respect to the Property ("Mortgage"). This Agreement shall be superior and senior to any lien placed upon the Property or any portion thereof after the date of recording this Agreement, including the lien of any Mortgage. Notwithstanding the foregoing, no breach hereof shall defeat, render invalid, diminish, or impair the lien of any Mortgage made in good faith and for value, but all of the terms and conditions contained in this Agreement shall be binding upon and effective against and inure to the benefit of any person or entity, including any deed of trust beneficiary or mortgagee ("Mortgagee") who acquires title to the Property, or any portion thereof, by foreclosure, trustee's sale, deed in lieu of foreclosure, or otherwise.

ii. *Liability for Past Defaults*. Any Mortgagee, including the successful bidder at a foreclosure sale, who takes title and possession of the Property, or any portion thereof, pursuant to such foreclosure, shall take the Property, or portion thereof, subject to the provisions of this Agreement; provided, however, in no event shall such Mortgagee be liable for any defaults or monetary obligations of Developer arising prior to acquisition of title to the Property by such Mortgagee. Notwithstanding the preceding sentence, in no event shall any such Mortgagee or its successors or assigns be entitled to a building permit, final inspection, or occupancy certificate until all fees and other monetary obligations due under this Agreement have been paid to the City and any other existing defaults under this Agreement that are reasonably subject to cure are cured.

iii. *Notice of Default to Mortgagee; Right of Mortgagee to Cure*. If City receives a notice from a Mortgagee requesting a copy of any Notice of Default given to Developer hereunder and specifying the address for service thereof, then City shall deliver to such Mortgagee, concurrently with service thereon to Developer, any notice given to Developer with respect to any claim by City that Developer has committed a default. If the City makes a determination of noncompliance hereunder, City shall likewise serve notice of such noncompliance on such Mortgagee concurrently with service thereof on Developer. Each Mortgagee shall have the right (but not the obligation) during the same period available to Developer to cure or remedy, or to commence to cure or remedy, the event of default claimed or the areas of noncompliance set forth in City's notice.

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13. No Damages Relief. The Parties acknowledge that the City would not have entered into this Agreement were it exposed to damages claims from Developer for any breach thereof. As such, the Parties agree that in no event shall Developer be entitled to recover damages against City for breach of this Agreement. To the extent permitted by law, specific enforcement of this Agreement, including specific performance of Developer's payment obligations set forth in Sections 4(b) and 4(c), is the proper and desirable remedy.

14. Recordation: Binding Effect. This Agreement shall be recorded in the office of the Alameda County Recorder and shall be binding upon and inure to the benefit of any successors in interest to the Parties. The Parties acknowledge that, as of the date of preparing this Agreement, the Property is owned in fee by Seller and that Seller shall have all rights and obligations of "Developer" under this Agreement.

15. Release Upon Transfer. Upon the sale, transfer, or assignment, in whole or in part, of Developer's right and interest to all or any portion of the Property, Developer shall be released from its obligations hereunder with respect to the portion so conveyed, provided: (i) Developer (or transferee) was not in default of this Agreement at the time of conveyance, (ii) Developer provided to City prior written notice of such transfer, and (iii) with respect to sale or transfer of any lot that has not been fully improved, the transferee executes and delivers to City a written assumption agreement in which: (a) the name and address of the transferee is set forth, and (b) the transferee expressly assumes the obligations of Developer under this Agreement as to the portion of the Property conveyed. Failure to deliver a written assumption agreement hereunder shall not negate, modify, or otherwise affect the liability of any transferee pursuant to the provisions of this Agreement.

16. Timing of Development.

    a. Because the California Supreme Court held in *Pardee Construction Co. v. City of Camarillo*, 37 Cal.3d 465 (1984), that the failure of the parties therein to provide for the timing of development resulted in a later adopted initiative restricting the timing of development to prevail over the parties' agreement, it is the Parties' intent to avoid that result by acknowledging, that unless provided for in this Agreement, Developer shall have the right (without obligation) to develop the Property in such order and at such rate and at such times as Developer deems appropriate within the exercise of its subjective business judgment, subject to the terms, requirements and conditions of the Entitlements and this Agreement.

    b. Developer will use its best efforts, in accordance with its own business judgment and taking into consideration market conditions and other economic factors influencing Developer's business decision, to commence or to continue development, and to develop the Project in a regular, progressive, and timely manner in accordance with the terms, requirements and conditions of the Entitlements and this Agreement.

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17. Legal Action; Attorneys' Fees. If the City chooses to defend any third party claim or suit challenging any action taken by the City with regard to this Agreement or any procedure or aspect of the City's approval of the development of the SMP 39 Development, including the environmental review process, the Developer in its capacity as either Developer or owner of the Property agrees to reimburse the City for the City's reasonable attorneys' fees, expert witness fees, and related costs as the City may incur in connection with its retention of outside counsel, and for any award of court costs or fees against the City. The City has the right to choose and retain such legal counsel as the City deems appropriate. After expenses reach $100,000, and each $100,000 thereafter, the Parties will confer to review the status of the litigation and their options for proceeding or settling, and they will negotiate in good faith about how the expenses will be allocated. The Developer, in its capacity as the Developer or owner of the Property, shall have no obligation to reimburse the City for costs incurred after the date on which the Developer or owner of the Property give the City written notice of their decision to settle a case, even if the City does not agree to the settlement. If legal action is brought by one of the Parties to enforce a provision of this Agreement, the prevailing party is entitled to reasonable attorneys' fees, expert witness fees, and court costs.

18. Notices. The address of each party for the purpose of all notices permitted or required by this Agreement is as follows:

To City:	City of Livermore 1052 South Livermore Avenue Livermore, CA 94550 Attention: Community Development Director and Ashley Vera, Senior Planner
With a copy to:	City Attorney City of Livermore 1052 South Livermore Avenue Livermore, CA 94550
To Developer:	Overton Moore Properties 19700 South Vermont Avenue, Suite 101 Torrance, CA 90502 Attention: Timur Tecimer
With a copy to:	Cox, Castle & Nicholson LLP 50 California Street, Suite 3200 San Francisco, CA 94111 Attention: Christian Cebrian
To Seller:	SMP-39, LLC 1459 18th St #317 San Francisco, CA 94107

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Attention: Jennifer Jimenez-Cruz

With a copy to: Allen Matkins
Three Embarcadero Center
12th Floor
San Francisco, CA 94111
Attention: Marshall Wallace

The written address of each Party set forth above may be changed by written notice given not less than five (5) days prior to the date such change is to be in effect. All notices under this Agreement shall be in writing, shall be properly addressed, and shall be sent by personal delivery, United States mail (registered, certified, or Express Mail, return receipt requested and postage prepaid), or by overnight courier delivery service. All such notices shall be considered delivered: (i) if personally delivered, on the date of delivery; (ii) if sent by United States mail in the manner prescribed above, on the date shown on the return receipt for acceptance or rejection; or (iii) if sent by overnight courier delivery service, on the date of delivery or attempted delivery as shown by the written delivery record of such service.

19. Severability; Choice of Law. If any term, provision, condition, or covenant of this Agreement, or the application thereof to any Party or circumstances, shall to any extent be held invalid or unenforceable, the remainder of the instrument, or the application of such term, provision, condition, or covenant, or the application of such term, provision, condition, or covenant to persons or circumstances other than those as to whom or which it is held invalid or unenforceable, shall not be affected thereby and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law. This Agreement shall be governed by the laws of the State of California.

20. Covenants Run with the Land. All of the terms, provisions, covenants, conditions, rights, powers, duties and obligations contained in this Agreement shall be binding upon the parties and their respective heirs, successors and assigns acquiring any portion of the Property and shall inure to the benefit of the parties and their respective heirs, successors and assigns.

21. No Third Party Beneficiaries. This Agreement is entered only for the benefit of the Parties executing this Agreement, their successors in interest. This Agreement is not for the benefit of any other individual, entity or person. Nothing herein shall be construed to create any right of any third party to enforce this Agreement or to seek any benefit therefrom.

22. Time Is of the Essence. Time is of the essence for each provision of this Agreement for which time is an element.

23. Certificate of Compliance. Any Party may, at any time, request that the City indicate in writing: (i) whether this Agreement is in full force and effect; (ii) whether this Agreement has been amended or modified, and if so amended, the nature of any such

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amendments; or (iii) whether to the best of City's knowledge the requesting Party is in default in the performance of any of its obligations under this Agreement, and if in default, the nature of any such default. City shall endeavor in good faith to respond to any such request within thirty (30) days following the receipt thereof. The Parties shall be entitled to one certificate of compliance per year without any fee being assessed by the City. For any additional certificates of compliance requested in a single year, the City may charge the requesting party a reasonable fee related to the actual cost to prepare the certificate.

24. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which constitute one and the same instrument.

[Signatures on following page]

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IN WITNESS WHEREOF, the Parties have signed this Pre-annexation and Development Agreement on the dates indicated below.

DEVELOPER

LIVERMORE INDUSTRIAL PARTNERS 39, LLC

By: DocuSigned by: Timur Tecimer D96DF47935D5472...

Date: 3/4/2024 Title: manager

SELLER

SMP-39, LLC

By: _____

Date: _____ Title: _____

CITY OF LIVERMORE

By: _____

Date: _____ Title: _____

Attest:

_____

City Clerk

Approved to as Form:

_____

Assistant/City Attorney

DocuSign Envelope ID: FA4B4EDF-EA7E-412C-BB1A-6D66AD13828C

Exhibits:

A SMP 39 Property Description

B SMP 39 Development Description

C Site Plan for SMP 39 Property

D Planned Development-Industrial (PD-I) 22-001 Zoning Standards

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EXHIBIT A

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF LIVERMORE, IN THE COUNTY OF ALAMEDA, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

ALL THAT REAL PROPERTY SITUATE IN THE SANTA RITA RANCHO, ALAMEDA COUNTY, CALIFORNIA, BEING A PORTION OF THE LAND DESCRIBED AS PARCELS 1 AND 2 IN THE GRANT DEED TO PLEASANTON GRAVEL COMPANY, A CALIFORNIA CORPORATION, AS RECORDED DECEMBER 15, 1977, ON REEL 5181, AT IMAGE 177 (SERIES NO. 77-247154), ALAMEDA COUNTY RECORDS, BEING DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID PARCEL 1; THENCE ALONG THE WESTERLY LINE OF SAID PARCEL 1, SOUTH 00° 28' 57" WEST, 1000.01 FEET MORE OR LESS TO A POINT DISTANT 1000 FEET SOUTHERLY OF, MEASURED AT RIGHT ANGLES, TO THE NORTHERLY LINE OF SAID PARCELS 1 AND 2 AND THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE PARALLEL TO THE NORTH LINE OF SAID PARCELS 1 AND 2, SOUTH 89° 24' 17" EAST, 4493.91 FEET TO A POINT ON THE EASTERLY LINE OF SAID PARCEL 2; THENCE ALONG THE EAST LINE OF SAID PARCEL 2, SOUTH 00° 16' 36" WEST, 469.21 FEET; THENCE LEAVING SAID EAST LINE, SOUTH 89° 39' 52" WEST, 4496.04 FEET TO INTERSECT THE WEST LINE OF SAID PARCEL 1; THENCE ALONG THE SAID WEST LINE, NORTH 00° 28' 57" EAST, 542.25 FEET TO THE POINT OF BEGINNING.

ASSESSOR'S PARCEL NO. 904-0003-001-04

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SMP 39 Development Description

Assessor Parcel Number 904-3-1-4 is also known as SMP 39 ("SMP 39 Property"). The aforementioned SMP number references the Surface Mining Permit (SMP) numbers applicable to the site. The Surface Mining Permit for the SMP 39 Property was approved by Alameda County in 2004 to allow for the extraction of sand and gravel (i.e., aggregate) within the site; however, aggregate mining has not occurred within the SMP 39 Property. The SMP 39 Property is approximately 51.9 acres and is located within unincorporated Alameda County, the City of Pleasanton (SOI), and the City of Livermore South Livermore Urban Growth Boundary (UGB). The Property is zoned Agricultural by Alameda County with a County General Plan designation of Industrial. The SMP 39 Property has a City of Livermore General Plan designation of Open Space/Sand and Gravel.

Surrounding existing uses include a paved shared-use path and the Livermore Municipal Airport to the north, the Oaks Business Park to the east; and the Arroyo Mocho Trail and single-family residences further east, across Isabel Avenue/SR 84; gravel quarries and industrial ponds associated with mining operations to the south and SMP 38, Arroyo Mocho and industrial ponds to the west.

Developer desires to construct six light industrial buildings on the SMP 39 Property totaling up to 755,500 square feet (sf) of new building area and associated internal roadways, parking, landscaping, utilities and other improvements ("SMP 39 Development").

The SMP 39 Development shall comply with the development requirements including land use, building and landscape setbacks, height, lot coverage, parking, and other required standards as set forth in the Planned Development-Industrial 22-001 (PD-I 22-001) zone. The loading docks would be located on the south side of each building, opposite from West Jack London Boulevard, accessible through a larger drive aisle along the southern portion of the site.

The SMP 39 Development shall include frontage improvements to and right-of-way dedication for the ultimate buildout of West Jack London Boulevard. Ultimate buildout of the roadway is anticipated to consist of four through lanes, including two 12-foot through lanes on each side, a 16-foot raised and landscaped median in the center of the roadway, as well as an eight-foot bike line on each side of the roadway, separated from the through lanes by a two-foot buffer. As part of the proposed frontage improvements, the SMP 39 Development shall include an at-grade, paved shared-use path within a 38.5-foot trail easement along the project frontage, consistent with the City's Active Transportation Plan (ATP), which shall provide a connection to the existing path along the western boundary of the Oaks Business Park and eventually to the Arroyo Mocho Trail. The proposed path would be similar to the existing path along the Oaks Business Park site.

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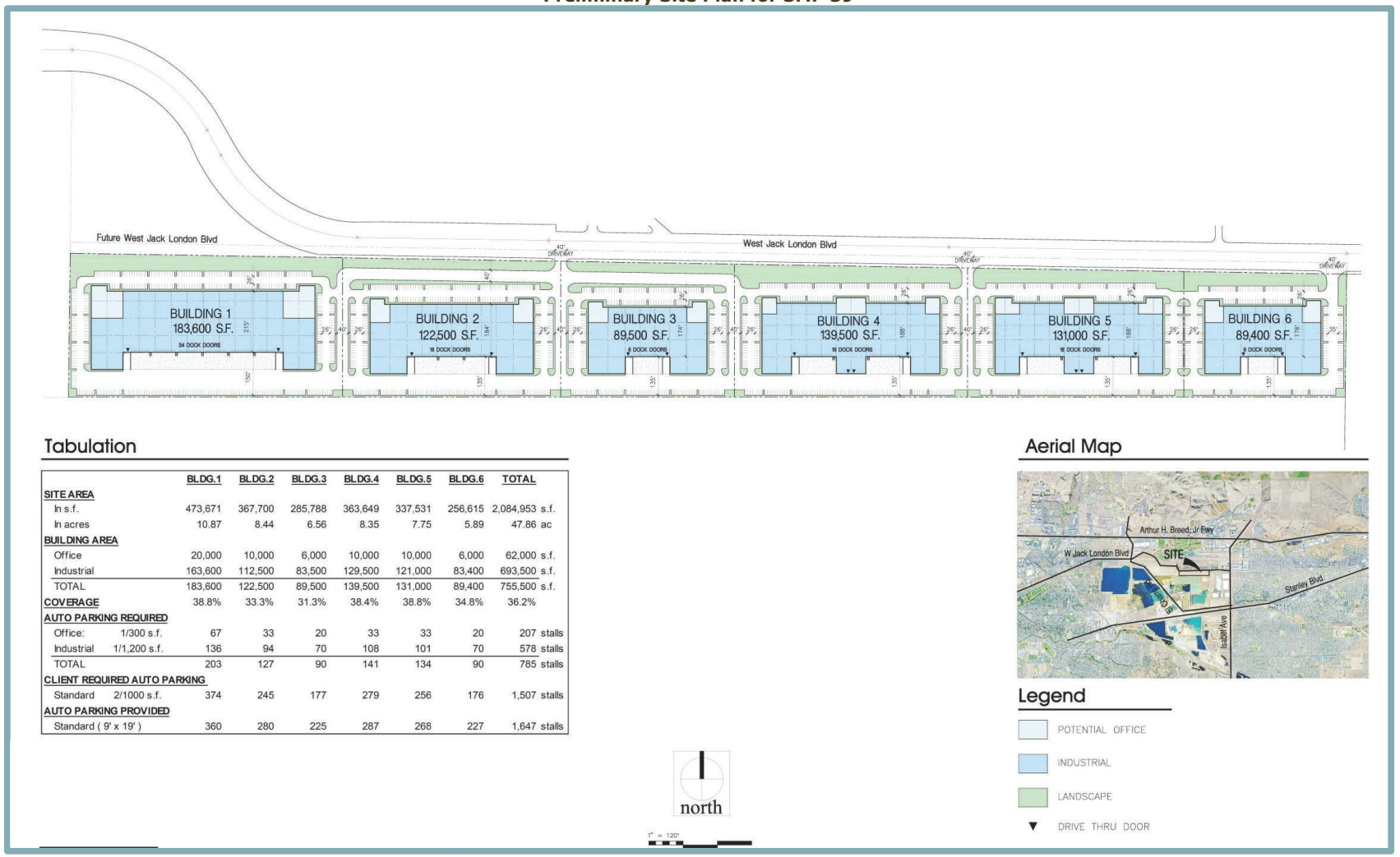
Figure 3-9
Preliminary Site Plan for SMP 39



	BLDG.1	BLDG.2	BLDG.3	BLDG.4	BLDG.5	BLDG.6	TOTAL	
SITE AREA								
In s.f.	473,671	367,700	285,788	363,649	337,531	256,615	2,084,953	s.f.
In acres	10.87	8.44	6.56	8.35	7.75	5.89	47.86	ac
BUILDING AREA								
Office	20,000	10,000	6,000	10,000	10,000	6,000	62,000	s.f.
Industrial	163,600	112,500	83,500	129,500	121,000	83,400	693,500	s.f.
TOTAL	183,600	122,500	89,500	139,500	131,000	89,400	755,500	s.f.
COVERAGE	38.8%	33.3%	31.3%	38.4%	38.8%	34.8%	36.2%	
AUTO PARKING REQUIRED								
Office: 1/300 s.f.	67	33	20	33	33	20	207	stalls
Industrial 1/1,200 s.f.	136	94	70	108	101	70	578	stalls
TOTAL	203	127	90	141	134	90	785	stalls
CLIENT REQUIRED AUTO PARKING								
Standard 2/1000 s.f.	374	245	177	279	256	176	1,507	stalls
AUTO PARKING PROVIDED								
Standard (9' x 19')	360	280	225	287	268	227	1,647	stalls

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PLANNED DEVELOPMENT STANDARDS SMP 39 & SMP 40

Planned Development – Industrial (PD-I) 22-001

Reviewed by Planning Commission: March 5, 2024
Approved by City Council: March 25, 2024

Purpose: The purpose of establishing this Planned Development-Industrial (PD-I 22-001) District (District) is to regulate the development of ± 51.9 acres of land located on Jack London Boulevard, west of Oaks Business Park and south of Livermore Municipal Airport (commonly referred to as "SMP 39") and ± 41 acres of land located south of Oaks Business Park, at the south end of Atlantis Street and Challenger Street (commonly referred to as "SMP 40"), as shown in the attached figure (Figure 1). The intent of this District is to accomplish the following:

1. PD-I 22-001 is intended to provide an environment exclusively for and conducive to the development and protection of modern professional and administrative facilities, research institutions, manufacturing operations, experimental and testing laboratory and related uses, any similar employment generating high-end industrial users, all of a non-nuisance type.
2. The District is intended to provide for an aesthetically attractive working environment with park- and/or campus-like grounds, attractive buildings, employee parking, and other amenities appropriate to a mix of office and industrial uses.
3. The District is intended to establish development standards and regulations consistent with the intent of the Low Intensity Industrial General Plan designation.
4. Any land use that utilizes hazardous materials shall be subject to the regulations of Section 6.02.040, Hazardous Materials, of the Livermore Development Code, as it exists now or is amended in the future.
5. Development shall be in conformance with the requirements of the Livermore Development Code as it exists now or is amended in the future, except as modified by the following regulations.
6. Development is subject to the Citywide Design Standards and Guidelines as they exist now or may be amended in the future unless otherwise modified by the following regulations.

A. Principal Permitted Uses:

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The following are the principal permitted uses for SMP 39[1] and SMP 40:

1. Research and development facilities
2. Professional and administrative offices
3. Experimental and testing laboratories
4. Manufacture of electric and electronic circuits, instruments, and devices
5. Manufacture of pharmaceutical products or life science facility, not exceeding Biosafety Level 2[2]
6. Medical diagnostic and manufacturing facilities
7. Manufacturing and assembly of motor vehicle parts, including but not limited to dashboards, parts, component systems, electrical connectors, sensors, panels, airbags, seats, tires, windows etc. for all vehicles and similar equipment (e.g. automobiles, motorcycle, construction equipment, farm equipment, buses).
8. Similar uses as determined by the Community Development Director to be of the same general character as the listed uses.

Additional Permitted Uses for SMP 39 only:

1. Restaurants, except fast food

Additional Permitted Uses for SMP 40 only:

1. Warehousing and distribution facilities, dry or refrigerated
2. Warehousing and distribution facility – E-commerce/Third Party Logistics (3PL)
3. Manufacturing, assembly, processing, storage, or packaging of products from previously prepared materials such as, but not limited to, cloth, plastic, paper, leather, and precious or semi-precious metals or stones, <u>but not including the following</u>:
    A. Operations such as saw and planing mills, any manufacturing uses involving primary production of wood, metal, or chemical products from raw materials, and similar uses
    B. Vehicle dismantling yards, scrap and waste yards
    C. Manufacturing, processing, storing, or packaging chemicals, petroleum, heavy agricultural products or other hazardous materials.

[1] SMP 39 and SMP 40 are located with the Airport Influence Area and the Livermore Airport Protection Area. Per the Alameda County Airport Land Use Compatibility Plan, the majority of SMP 39 is located in Safety Zone 6, with a portion of the site located in Safey Zone 3. The principal permitted land uses are intended to be located in buildings that are only within the portion of SMP 39 that is located in Safety Zone 6.

[2] Per the Centers for Disease Control and Prevention, Biosafety Level 2 laboratories involve work that poses moderate hazards to laboratory workers and the environment. Biosafety Level 2 laboratories require safety protocols to contain microbes and biological agents.

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4. Sale of heavy equipment and construction related vehicles and equipment, including associated repair, service, and parts distribution facilities. Showrooms related to this use may be a conditionally permitted ancillary use.
5. Similar uses as determined by the Community Development Director to be of the same general character as the listed uses.

B. Conditional Uses for SMP 39 and 40:

1. Public and quasi-public uses.
2. Manufacture of pharmaceutical products or life science facility, not exceeding Biosafety Level 3[3]
3. Similar uses as determined by the Planning Commission to be of the same general character as the listed uses.

Conditional Uses for SMP 39 only:

1. Fast-food businesses, banks, personal services, or goods required for the convenience and support of occupants of uses in the surrounding district(s).
2. Warehouse and distribution facilities, including E-commerce/Third Party Logistics (3PL) uses, with the condition that these uses may only occupy up to 20 percent of the total buildable site area.
3. Sale of heavy equipment and construction related vehicles and equipment, including associated repair, service, and parts distribution facilities, provided they are manufactured and/or sold on-site. Showrooms related to this use may be a conditionally permitted ancillary use.
4. Similar uses as determined by the Planning Commission to be of the same general character as the listed uses.

C. Accessory Uses Permitted on SMP 39 and 40:

1. Signs subject to the requirements established by the Livermore Development Code, as well as the Citywide Design Standards and Guidelines, as it exists now or is amended in the future.
2. Accessory uses and buildings customarily appurtenant to a permitted use.
3. Living quarters determined by the Community Development Director to be necessary for surveillance purposes.
4. Fuel stations subject to the requirements of Section 6.03.160, Vehicle Services, of the Livermore Development Code, as it exists now or is amended in the future.

[3] Per the Centers for Disease Control and Prevention, laboratories designated Biosafety Level 3 involve work that poses a safety hazard greater than Biosafety Level 2 laboratories, defined above. Biosafety Level 3 laboratories require additional safety protocols beyond those required for Biosafety Level 2 laboratories to contain microbes and biological agents.

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D. Special Development Requirements for SMP 39 and 40:

1. Uses shall be designed and integrated into the site in a manner that maintains and is complementary to the corporate and professional character of the nearby Oaks Business Park.
2. Outdoor service and storage yards shall be screened from public view consistent with Livermore Development Code Section 6.03.100, Outdoor Storage, as it exists today or is amended in the future.
3. For SMP 40 only: Commercial/Industrial buildings shall be located a distance of at least 500 feet from Isabel Avenue.

E. Site Development Regulations for SMP 39 and 40:

The following minimum requirements shall be observed, except where increased for conditional uses:

1. Lot Area: Twenty thousand square feet
2. Lot Width: One hundred feet
3. Setbacks: Setback requirements are established below. Buildings shall not be permitted within required setbacks.

A. SMP 39

1) Front or Street Side: 40-feet on West Jack London Boulevard, and 30-feet on frontage roads and interior streets, except as required by subsection E.4. All required setbacks adjacent to streets shall be landscaped, except for driveways, sidewalks, and trails that are found to be necessary for the efficient use of the property. Where a building front is visible from the street, a minimum five-foot wide landscaped strip abutting the foundation shall be included, allowing for necessary entrances.
2) Rear and Side: None.

B. SMP 40

1) Front or Street Side: 500-feet from Isabel Avenue, and 30-feet on frontage roads and interior streets, except as required by subsection E.4. All required setbacks adjacent to streets shall be landscaped, except for driveways and sidewalks that are found to be necessary for the efficient use of the property. Where a building front is visible from the street, a minimum five-foot wide landscaped strip abutting the foundation shall be included, allowing for necessary entrances
2) Rear and Side: None, except for a 20-foot setback from the top of the Arroyo Mocho bank on SMP 40 which should be determined from a 2.5:1 slope projection from the toe of

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channel/mining pit to the top, as required in the Environmental Impact Report for the project.

4. Height Regulations: The height of all on-site structures, including roof-top mechanical equipment, is limited to 50 feet or the height permitted by the Federal Aviation Administration (FAA) review under FAA regulations – Part 77, whichever is more restrictive. Upon providing a minimum 40-foot setback from street rights-of-way, a Conditional Use Permit may be requested to increase height to a maximum of 55 feet, or the height permitted under FAA regulations – Part 77, whichever is more restrictive. The height of pole-and building-mounted lights may be approved up to 28 feet by an administrative site plan and design review, if found necessary for the health and safety of a site designed for truck or other large vehicle maneuvering and documented by a light study to not cause glare off-site.
5. Lot Coverage: The building coverage maximum shall be 45 percent.

F. Signs

1. Industrial Uses. Signs for industrial uses shall be subject to the sign regulations contained in Livermore Development Code section 4.06.230 (sign standards for I-1, I-2 and I-3) and the Citywide Design Standards Guidelines as it exists now or is amended in the future.
2. Commercial Uses. Signs for commercial uses shall be subject to the sign regulations contained in Livermore Development Code section 4.06.170 (sign standards for CNB) and the Citywide Design Standards Guidelines as it exists now or is amended in the future.

G. Other Required Standards for SMP 39 and 40:

1. Noise. No use shall be permitted which creates an ambient noise level greater than 75 decibels (dBA) beyond the boundaries of the site, nor greater than 60 decibels at the boundary of a Residential District.
   A. On SMP 39, semi-truck access to the site (arrivals and departures) shall be limited to 96 trips between the hours of 10:00 PM and 7:00 AM.
   B. On SMP 40, semi-truck access to the site (arrivals and departures) shall be limited to 40 trips between the hours of 10:00 PM and 7:00 AM
   C. Between the hours of 10:00 PM and 7:00 AM single-event noise levels (e.g., backup alarm, truck brakes, etc.) shall not exceed 55 dBA, measured at the property line of the nearest residential use.
2. Air Pollution. All uses shall comply with regulations of the San Francisco Bay Area Air Pollution Control District.
3. Vibration, Heat, Glare, Electrical Disturbance. No use shall be permitted which creates noise, odors, vibrations, heat, glare, or electrical disturbances beyond the

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boundaries of the site. Lighting used to illuminate buildings, structures, uses, or parking and loading areas shall not be directed toward any public right-of-way.

4. Fire, Explosion. All uses shall provide adequate safety devices and adequate firefighting and fire suppression equipment to protect against fire, explosion, and other hazards.
5. Solid and Liquid Wastes. No solid or liquid waste discharges, other than permitted discharges into a public sewage disposal system, shall be permitted. The chemical composition and volume of industrial effluent discharged shall be subject to the wastewater permit requirements established by LMC Title 13, Division II. (Ord. 442 § 14.80).

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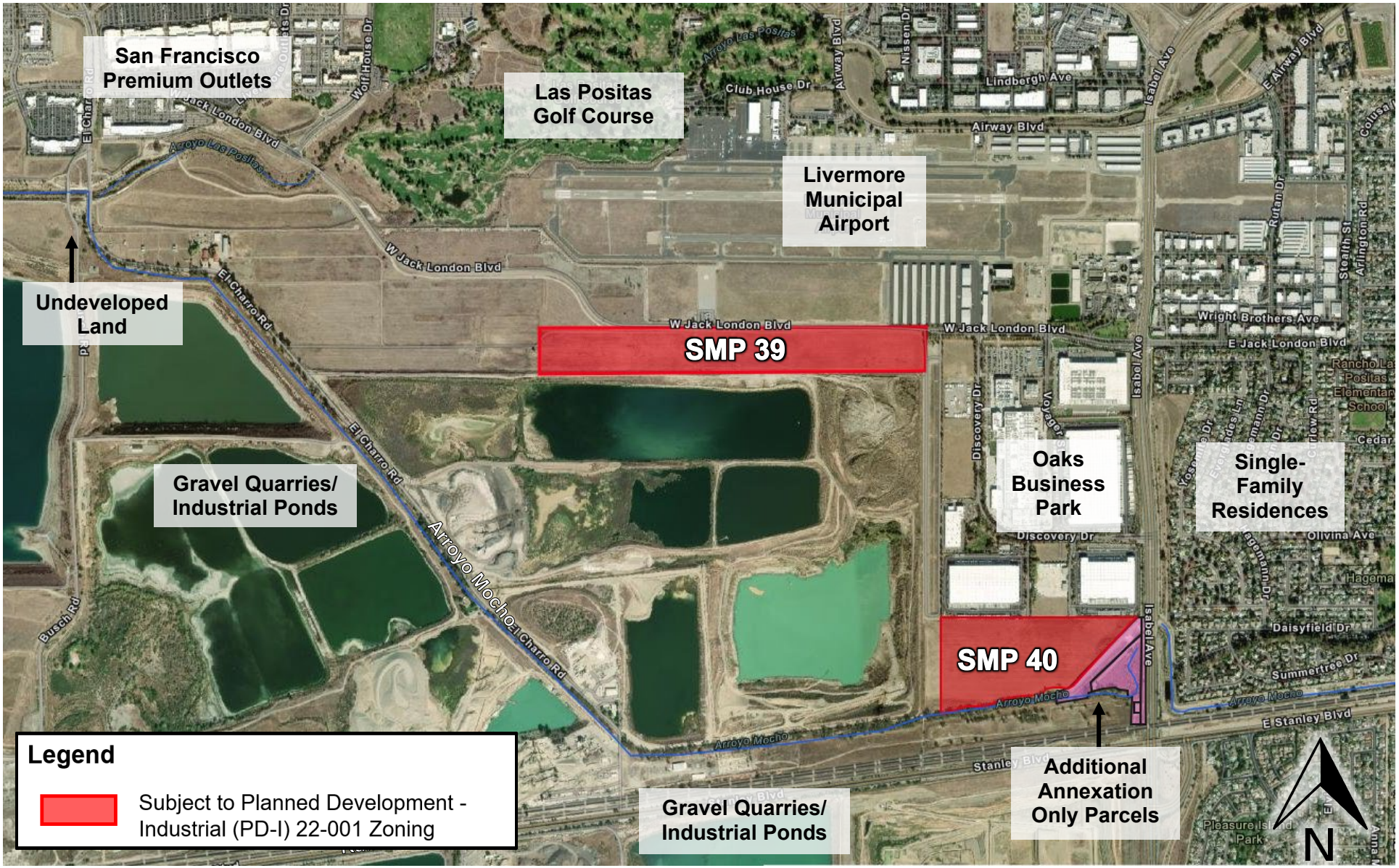
Figure 1



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City Clerk
City of Livermore
1052 South Livermore Avenue
Livermore, CA 94550

(Space Above This Line Reserved for Recorder's Use Only)

PRE-ANNEXATION AND DEVELOPMENT AGREEMENT

BY AND BETWEEN

THE CITY OF LIVERMORE

AND

LIVERMORE INDUSTRIAL PARTNERS 40, LLC; AND SMP-40, LLC

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PRE-ANNEXATION AND DEVELOPMENT AGREEMENT (DA 23-002)
[SURFACE MINING PERMIT (SMP) 39/40 PROJECT – SMP 40 PROPERTY]

This Pre-annexation and Development Agreement ("Agreement") is entered into on _____, 2024 between the City of Livermore, a municipal corporation ("City"), Livermore Industrial Partners 40, LLC ("Developer") and SMP-40, LLC ("Seller"). The City, Developer, and Seller are sometimes referred to below each individually as a "Party" and collectively as the "Parties."

RECITALS

This Agreement is based on the following facts:

A. The City has the authority to enter into a development agreement under Government Code section 65864 *et seq.* ("Development Agreement Statutes") and Chapter 9.04 of the Livermore Development Code to vest certain rights to the Developer and to meet certain public purposes of the local government.

B. SMP-39, LLC, an affiliate of Seller, owns approximately +/- 51.9 acres located on Jack London Boulevard, west of Oaks Business Park and south of Livermore Municipal Airport (commonly referred to as "SMP 39"). Seller owns approximately +/- 41 acres (commonly referred to as "SMP 40" or, for purposes of this Agreement, "SMP 40 Property"), which is the subject of this Agreement. The aforementioned SMP numbers reference the Surface Mining Permit (SMP) numbers applicable to each site. The Surface Mining Permits for each of the sites were approved by Alameda County in 2004 to allow for the extraction of sand and gravel (i.e., aggregate) within the sites; however, aggregate mining has not occurred within either of the sites.

C. Four additional parcels that total approximately +/- 12.9 acres are located east of SMP 40 and are included in the overall project area (as set forth in more detail in Recital F and referred to as the "Additional Annexation Only Parcels"). The City has chosen to include the parcels in the proposed annexation area for purposes of efficiency and to create logical boundaries.

D. The SMP 40 Property consists of one parcel Assessor Parcel Number (APN) 904-0010-002-02 and is generally located south of Oaks Business Park, at the south end of Atlantis Street and Challenger Street. It is situated in Alameda County and is within the City of Livermore's Sphere of Influence ("SOI") and the City of Livermore's South Livermore Urban Growth Boundary ("UGB"). The SMP 40 Property is zoned Agricultural by Alameda County with a County General Plan designation of Industrial. The SMP 40 Property has a City of Livermore General Plan designation of Open Space/Sand and Gravel.

The SMP 40 Property is described more specifically in the attached **Exhibit A**. The SMP 40 Property does not include property located within SMP 39 or the Additional Annexation Only

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Parcels, as described in Recitals E and F below. Development of the SMP 40 Property is described in Recitals G and H, below, and set forth in more detail in **Exhibit B** (SMP 40 Development Description) and **Exhibit C** (Site Plan for the SMP 40 Property). Developer is in contract to purchase SMP 40 Property from Seller, and under that contract has the primary rights and obligations regarding application for and funding the Entitlements, described below in Recital I, for the SMP 40 Property as set forth in this Agreement. Developer is required to annex the SMP 40 Property into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

E. SMP-39, LLC, an affiliate of Seller, owns certain real property consisting of one parcel (APN 904-0003-001-04) and is situated in Alameda County, within the City of Pleasanton's SOI and the City of Livermore's South Livermore UGB ("SMP 39"). SMP 39 is zoned Agricultural by Alameda County and has a County General Plan designation of Industrial. SMP 39 has a City of Livermore General Plan designation of Open Space/Sand and Gravel. The Developer is required to change the SOI for SMP 39 from the City of Pleasanton to the City of Livermore and to annex SMP 39 into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

F. Four additional parcels (APNs 904-0010-002-03, -5, -7, and -8) located immediately east of SMP 40 are within unincorporated Alameda County, the City of Livermore SOI, and the City of Livermore South Livermore UGB ("Additional Annexation Only Parcels"). APN 904-0010-002-03 is an approximately 0.20-acre parcel owned by the Pacific Gas and Electric Company (PG&E) and is developed with existing PG&E infrastructure. APN 904-0010-002-05 is an approximately 5.76-acre parcel owned by the Zone 7 Water Agency and serves as a flood control channel. APN 904-0010-002-07 is an approximately 1.57-acre parcel owned by the California Department of Transportation (Caltrans) and is currently undeveloped. APN 904-0010-002-08 is an approximately 5.46-acre parcel owned by the City of Livermore and is currently undeveloped with scattered trees throughout the parcel. The City of Livermore General Plan designates the Additional Annexation Only Parcels as Open Space/Sand and Gravel. The Additional Annexation Only Parcels are also within the East County Area Plan of the Alameda County General Plan, which designates the parcels as Industrial. The parcels are zoned Agriculture by Alameda County. The Developer is required to annex the Additional Annexation Only Parcels into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

G. Due to their interrelated nature, activities involving SMP 39, SMP 40, and the Additional Annexation Only Parcels (together, the "SMP 39/SMP 40 Project") are considered in a single Environmental Impact Report ("EIR") (SCH #2023010091) for purposes of the City's environmental review under the California Environmental Quality Act ("CEQA"). The SMP 39/SMP 40 Project evaluated in the EIR includes a SOI amendment for SMP 39 and a General Plan Amendment, Pre-zoning and Annexation, Zoning Map Amendment/ Planned Development, Vesting Tentative Subdivision Maps, Pre-Annexation Agreements, and Development Agreements for SMP 39 and SMP 40. A Site Plan Design Review entitlement is also included for SMP 40. The SMP 39/SMP 40 Project evaluated in the EIR also includes annexation of the Additional Annexation Only Parcels.

H. SMP 39 and SMP 40 shall be developed with light industrial development uses consistent with the City's *Low-Intensity Industrial* General Plan designation, including research

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and development, professional and administrative offices, experimental and testing laboratories, manufacturing of electronic and other high-end complex products, a limited amount of warehouse and distribution, and similar uses as stated in PD-I 22-001, the zoning for the property (**Exhibit D**). The SMP 39/SMP 40 Project includes (i) on SMP 39, approximately six light industrial buildings consisting of up to 755,500 square feet (sf) of development and, (ii) on SMP 40, two light industrial buildings consisting of up to 759,275 sf of development. **Exhibit C** shows the proposed site plan for the SMP 40 Development. Developer and City intend that separate Pre-annexation and Development Agreements will be entered into for SMP 39 and SMP 40, respectively, in order to segregate the rights and obligations related to each property. This Agreement, as reflected herein, addresses the SMP 40 Property and no other property.

I. The Developer has applied for the following entitlements ("Entitlements") for the SMP 40 Property from the City of Livermore as required under the Livermore Development Code, to be vested in accordance with this Agreement pending annexation of the SMP 40 Property into the City of Livermore:

- General Plan Amendment (GPA 21-001) to change the City of Livermore designation of SMP 39 and SMP 40 from *Open Space/Sand and Gravel* (OSP/S&G) to *Low-Intensity Industrial* (LII) and to change the City of Livermore designation of the Additional Annexation Only Parcels from *Open Space/Sand and Gravel* (OSP/S&G) to *Parks, Trailways, Recreation Areas* (OSP) (the "General Plan Amendment" or "GPA");

- Pre-zoning of SMP 39 and SMP 40 (DCA 21-005, ZMA 21-002 and PD-I 22-001) by (i) amending the City's zoning map to rezone SMP 39 and SMP 40 to the *Planned Development - Industrial* (PD-I) 22-001 zoning district, which includes the "Planned Development-Industrial 22-001 Zoning Standards" described more fully in attached **Exhibit D**; and (ii) pre-zoning the Additional Annexation Only Parcels to *Open Space Flood Plain* (the "Prezoning"). The Prezoning shall become effective with respect to SMP 39, SMP 40, and the Additional Annexation Only Parcels upon their annexation to the City in accordance with California Government Code section 65859;

- SOI Amendment and Annexation (APZ 21-003) authorizing submittal of an application to the Alameda County Local Agency Formation Commission ("LAFCo") to (i) include SMP 39 within the City of Livermore's SOI (and remove SMP 39 from the City of Pleasanton's SOI); and (ii) annex SMP 39, SMP 40, and the Additional Annexation Only Parcels from Alameda County into the City;

- Vesting Tentative Parcel Map 11219 (SUB 21-009) authorizing the creation of two development parcels for the SMP 40 Property, (the "Tentative Map");

- Site Plan Design Review (SPDR 21-008) certifying compliance with the "Applicable Rules" (meaning the rules, regulations, and official policies of the City, including but not limited to the City's General Plan and Livermore

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Development Code, as they existed on the Effective Date, except as otherwise amended by the approved Entitlements or this Agreement) and the Planned Development Standards with respect to the development proposed on the SMP 40 Property (the "SPDR Approval"); and

- This Pre-annexation and Development Agreement (DA 23-002) to vest certain rights to the Developer and to provide specific public benefits that meet certain public purposes of the local government.

In addition to the above listed Entitlements, an EIR (SCH #2023010091) for the SMP 39/SMP 40 Project has been prepared in accordance with CEQA to evaluate potential impacts to the environment of the SMP 39/SMP 40 Project, including the Entitlements.

J. The City Council finds that the SMP 39/SMP 40 Project is in the public interest; will establish land uses compatible with the physical nature of the SMP 40 Property and the surrounding area; will generate light industrial development and activity to meet local and regional goals; and will provide certain substantial public benefits and help attain certain other public objectives including, without limitation: (i) including construction of and a $750,000 financial contribution toward off-site trail improvements, creating connections to the City's existing trail networks as identified in the *Active Transportation Plan* ("ATP"); and (ii) a commitment to the funding of $100,000, payable over a two-year term in increments of $50,000 per year, to facilitate uses that support an innovation-driven economy, generate high wage jobs, or generate substantial sales tax revenues as determined by the Director of Innovation and Economic Development. Items (i) through (ii) above, and as described more fully in Section 4, are collectively referred to as the "Public Benefits").

K. This Agreement will promote and encourage the SMP 40 Development by providing the Developer and its creditors with a greater degree of certainty of the Developer's ability to expeditiously and economically complete the development effort for the SMP 40 Property, and the Parties agree that the consideration to be received by the City pursuant to this Agreement and the rights secured to the Developer hereunder constitute sufficient consideration to support the covenants and agreements of the City and the Developer. By entering into this Agreement, the City desires to allow the Developer to design, apply for, and if approved to develop the SMP 40 Property pursuant to this Agreement, the land use ordinances, rules, regulations, and policies applicable on the "Effective Date," as defined in Section 2, and to vest in Developer, upon annexation, to the fullest extent possible under the law, development entitlements in order to complete the SMP 40 Development, consistent with Section 5(c) of this Agreement.

L. The SMP 40 Development has been extensively reviewed and considered by the City and its officers, agencies, and departments. The proposed uses have been found to accommodate the City's recommendations and suggestions in order to protect the public's interest and to enhance the desirability, from the public's perspective, of the SMP 40 Development.

M. The City conducted duly noticed public hearings on this Agreement pursuant to Government Code section 65867 and Livermore Development Code sections 9.04.040 and

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9.04.050 and found that the provisions of this Agreement and its purposes are consistent with the objectives, policies, general land uses, and programs specified in the City's General Plan and Livermore Development Code.

N. This Agreement was adopted by ordinance of the City Council on _____, 2024 and approved upon a second reading on _____, 2024 after notice and public hearings before the Planning Commission and City Council, and after City Council certification of an EIR in accordance with CEQA, Public Resources Code section 21000 *et seq*.

NOW, THEREFORE, the City and Developer hereby agree that the aforementioned recitals are true and correct and incorporated by reference as fully set forth below, and further agree as follows:

1. The Property. The SMP 40 Property is described in **Exhibit A**, attached hereto. The SMP 40 Development includes two light industrial buildings consisting of up to 759,275 sf of development. A comprehensive description of the SMP 40 Development and a proposed site plan is in attached **Exhibit B** (SMP 40 Development Description) and **Exhibit C** (Site Plan for the SMP 40 Property).

2. Effective Date. The effective date of this Agreement (the "Effective Date") is the later of (a) thirty (30) days after the date the Ordinance approving this Agreement is adopted by the City Council and attested by the City Clerk, or (b) if a referendum petition is timely and duly circulated, filed and qualified by the Elections Official, the date the election results on the ballot measure by City voters approving this Agreement are certified by the City Council in the manner provided by the Elections Code. This Agreement shall be executed by the City within ten (10) days after the Effective Date and recorded as provided in Government Code Section 65868.5.

3. Term. The term of this Agreement is ten (10) years ("Term"), beginning on the date annexation proceedings for SMP 39, SMP 40, and the Additional Annexation Only Parcels are complete ("Annexation Date"). The Agreement may be extended as provided for in the Development Agreement Statutes and the Livermore Development Code, subject to the written consent of the City and Developer. The terms of the Entitlements shall be automatically extended such that the Entitlements remain in effect for any extended Term.

   Following the expiration of the Term, or the earlier completion of development of the SMP 39/SMP 40 Project and all of Developer's obligations in connection therewith, or the failure of SMP 39 or SMP 40 to be annexed into the City of Livermore in accordance with Section 5(g) of this Agreement, this Agreement shall be terminated and of no further force and effect, subject, however to the provisions of Section 10 and Section 16.

4. Developer Obligations; Schedule of Performance. The Developer shall comply with the requirements set forth in the Schedule of Performance and tasks listed below. The Schedule of Performance is subject to revision from time-to-time as mutually agreed upon in writing between the City and the Developer, which shall be accomplished through a separate document and without the need to amend this Agreement. The City

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Manager shall have the authority to approve on behalf of the City any revision to a date in the Schedule of Performance that he or she deems appropriate, provided that the revision extends the performance deadline for a time period no longer than one year. Developer shall comply with the following Schedule of Performance:

a. Developer shall initiate timely applications for the SOI amendment for SMP 39 and the annexation for SMP 39, SMP 40, and the Additional Annexation Only Parcels, which shall be reviewed by the appropriate decision-making bodies for each parcel, which may include the City of Pleasanton, Livermore City Council and LAFCo.

b. Developer shall pay a $100,000 cash contribution to the City of Livermore Office of Innovation and Economic Development Department for marketing SMP 39 for the desired land uses identified in PD-I 22-001.

    i. Prior to issuance of the first building permit for the SMP 40 Property, the Developer shall pay an initial $50,000 cash contribution to the City of Livermore Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001.

    ii. Developer shall pay a second $50,000 contribution to the City of Livermore Office of Innovation and Economic Development Department no later than one (1) year following the receipt of the initial $50,000 contribution, to be used toward further marketing SMP 39 for the desired land uses identified in PD-I 22-001.

c. In addition to the on-site trail required by the Project, as set forth in the Conditions of Approval, Developer shall construct an off-site grade-separated overcrossing (bridge) of Isabel Avenue/State Route 84 north of the existing railroad tracks and Stanley Boulevard as a required public benefit ("the Trail Overcrossing"). Developer shall also construct trail connections from the terminus of the bridge to the existing off-site Arroyo Mocho trail east of Isabel Avenue and from the terminus of the bridge west of Isabel Avenue, north to the existing trail along the Zone 7 property (north of the Arroyo Mocho Channel) ("the Trail Connections"). The Trail Overcrossing shall have a span of approximately 190-210 feet and shall run parallel with the existing railroad tracks. The materials shall consist of a fabricated truss and a weathered steel span bridge with concrete flooring. The Trail Overcrossing shall be supported by two cast-in-place concrete abutments which are supported by cast-in-drilled-hole concrete piles. An approach retaining wall shall be required on the east end. The Trail Overcrossing shall be cambered so it will drain from the middle to each end and then drain to the edges and connect to Caltrans storm drains. A site plan and preliminary design details are provided in **Exhibit E**. Final designs shall be conditioned to meet the requirements of applicable permitting agencies. Permits shall be required from the City of Livermore and Caltrans. In addition, an encroachment permit will be required from Caltrans. The Trail Overcrossing and Trail Connections shall be designed as described above or with similar design features as approved by the Community Development Director. The Trail Overcrossing and Trail Connection design shall

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include lighting, cameras, and/or other safety and security measures as required by the City's Chief of Police and City Engineer.

i. As part of Final Map submittal for the SMP 40 Property, the Developer shall pay for and submit design plans, cost estimates, and project bids to the City for review and approval for the Trail Overcrossing and the Trail Connections. Developer shall work to secure and provide a competitive cost for the bridge, consistent with commercially reasonable costs and construction practices. The Trail Overcrossing and Trail Connection design shall be approved by the City before the Developer can apply for any permits related to the Trail Overcrossing and Trail Connection. Developer may submit the Final Map to the City without the Trail Overcrossing and Trail Connections details if the City Engineer determines, in his or her discretion, that the delay in the preparation of said details was due solely to delay by a public agency other than the City.

ii. The Developer's monetary contribution towards the costs of the Trail Overcrossing and Trail Connections shall equal Seven-Hundred-Fifty-Thousand Dollars ($750,000.00) (the "Developer Obligation"). The $750,000 Developer Obligation is in addition to the design and permitting costs the Developer is responsible as set forth in the Agreement. As part of Final Map approval, Developer shall enter into a Subdivision Improvement Agreement which will reference the Developer Obligation.

iii. Prior to Final Map approval, the Developer shall enter into a Community Facilities District to fund long-term maintenance and replacement of the on-site trail improvements and associated landscaping and retaining walls and the off-site trail improvements located within the Zone 7 trail easement associated landscaping and retaining walls.

iv. Prior to issuance of Certificate of Occupancy for Building 2 on the SMP 40 Property, the Developer shall pay for and obtain all necessary permits and approvals from all applicable government agencies, including but not limited to the City and Caltrans and complete all on- and off-site trail improvements including the Trail Overcrossing and the Trail Connections, subject to acceptance of the public improvements by the Livermore City Council.

v. If Developer fails to complete the Trail Overcrossing and Trail Connections prior to the issuance of the Certificate of Occupancy of Building 2 on the SMP 40 Property, Developer shall provide an irrevocable letter of credit from J.P. Morgan Chase, Wells Fargo Bank, or Bank of America in the amount of the remaining estimated cost of construction of the Trail Overcrossing and the Trail Connections, plus a 25 percent contingency added to the remaining estimated cost. The irrevocable letter of credit shall provide the City with sole and unilateral release of funds and shall be in a form approved by the City Attorney. The remaining estimated cost shall be determined by an updated Engineer's cost estimated provided and approved by the City Engineer prior to the issuance of Certificate of Occupancy for Building 2. Unless the City

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Engineer determines in his or her discretion that a delay by a public agency other than the City was the sole reason for Developer's failure to complete to the Trail Overcrossing or Trail Connection, the Developer Obligation to the Trail Overcrossing and Trail Connections shall increase every six months following issuance of the Certificate of Occupancy of Building 2 on the SMP 40 Property until the Trail Overcrossing and the Trail Connections have been completed, including acceptance of the public improvements by the Livermore City Council as follows: $25,000 every six months during year one, $50,000 every six months during year two, and $75,000 every six months during year three. The Developer shall remain responsible for paying for and obtain all necessary permits and approvals from all applicable government agencies as noted in Section 4(c)v and completing all on- and off-site trail improvements including the Trail Overcrossing and the Trail Connections, subject to acceptance of the public improvements by the Livermore City Council. The obligation to provide an irrevocable letter of credit shall be independent of, and in addition to, the City's standard bond requirements under the Subdivision Improvement Agreement.

vi. In accordance with Chapter 12.30, Traffic Impact Fee on Development Section 12.30.080, Credit and Reimbursement, the Developer shall be eligible for Traffic Impact Fee (TIF) credits to construct the Trail Overcrossing and Trail Connection costs, less the $750,000 Developer Obligation. As described further in attached **Exhibit F**, City shall provide Developer a TIF credit of the SMP 40 Project's Traffic Impact Fees (the "Impact Fee Credit") for the identified Engineer's cost estimate (or up to 10 percent over this estimate as specified above). If the construction cost estimate exceeds 10 percent of the Engineer's cost estimate, the Developer shall pay the remaining Trail Overcrossing and Trail Connections cost over the Engineers estimate. The Impact Fee Credit shall be credited against the TIF that are collected at the time each building permit is paid, and on a permit-by-permit basis as Developer's obligations to pay such impact fees accrue until the last SMP 40 Project building permit is issued. Notwithstanding anything to the contrary in this Agreement, if the Engineer's cost estimate has not been prepared and/or approved prior to when payment of TIF is due, Developer shall pay the applicable TIF when due and City shall provide Developer a cash reimbursement in the dollar amount of TIF Credit within thirty (30) business days after City Engineer's review and approval of the Engineer's cost estimate, such approval not being unreasonably withheld, conditioned, or delayed.

5. Vested Development Rights. Subject to annexation into the City and the terms of this Agreement, the SMP 40 Development shall vest in accordance with this Agreement, and the Developer has the right to develop and use the SMP 40 Property in accordance with:

   a. The City's General Plan and the Livermore Development Code in effect on the Effective Date and the Entitlements in effect on the Annexation Date;

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b. All other City policies, ordinances, resolutions, rules, regulations, and standards applicable to development or use of the SMP 40 Property on the Effective Date, except that Developer shall:

(1) Pay the processing and development impact fees applicable City-wide that are in effect at the time the fees are paid. Payment for said fees shall be made prior to issuance of any building permits.

(2) Comply with Building Code requirements in effect on a City-wide basis at time of Building permit submittal;

(3) Comply with construction and technical design standards or specifications for public improvements that are applicable City-wide at time of Building permit submittal;

(4) Comply with changes in City laws, regulations, plans, or policies applicable City-wide, the terms of which are found by the City Council, based on substantial evidence, to be necessary to protect members of the public from a condition dangerous to public health or safety;

(5) Comply with a change in City law, regulations, plans, or policies that is:

i. Specifically mandated by state or federal law, or by any regional governmental agency that has legal authority over the City under state law or a joint powers agreement; or

ii. A result of or in response to state or federal law, or regional agency action, made necessary in order for the City to avoid losing or not receiving substantial funding or other substantial public benefits or facilities that would be available to the City only if it makes such a change; or

iii. Specifically mandated by, or necessary for compliance with or implementation of, the terms of any permit, entitlement, or other authorization necessary for the development of the Property that is issued or granted to the City, County, and/or Developer by any federal, state or regional agency;

(6) Following any subsequent environmental review, comply with required mitigation measures; and

c. In the event that Developer applies for any subsequent entitlements, subsequent entitlements shall be subject to the City's ordinances, rules, regulations and policies in effect on the date of submittal of the subsequent entitlements.

d. If there is any inconsistency between this Development Agreement and a permit or entitlement issued for the SMP 40 Property, this Development Agreement shall control.

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e. Developer acknowledges that execution of this Agreement by the City does not constitute approval of any required permits, applications, or allocations, and in no way limits the discretion of the City in the permit, allocation, and approval process in accordance with the limitations set forth herein.

f. Upon annexation of SMP 39 and 40, Developer agrees that all mining permits previously granted by Alameda County on the SMP 39 and SMP 40 properties shall be forfeited, and no mining operations shall occur on the SMP 39 Property or the SMP 40 Property. No later than 60 days from the date LAFCo approves annexation of the SMP 40 Property, subject to any extension granted by the City, Developer shall coordinate with Alameda County to complete any final actions required to remove the mining permits and all associated permissions related to mining operations from the SMP 39 and SMP 40 properties.

g. The Parties agree that the obligations set forth in this Agreement are conditioned upon the passing of a City Council Resolution authorizing submittal of an application to LAFCo for SOI and Annexation, the filing of an application with LAFCo to modify the SOI for SMP 39, annex SMP 39, SMP 40 and the Additional Annexation Only Parcels, requesting waiver of notice, hearing and protest from LAFCo, subject to LAFCo approval. Furthermore, the Parties also agree that the obligations set forth in this Agreement are conditioned upon the approved and finalized SOI modification and annexation of the SMP 39 and SMP 40 Properties and the Additional Annexation Only Parcels into the City of Livermore. Upon approval of the SMP 39/SMP 40 Project by the City, the City agrees to act in good faith, in collaboration with the Developer, to support and timely process the annexation application with LAFCo. The Developer shall be responsible for all costs associated with annexation, including but not limited to preparation of the LAFCo application, LAFCo application submittal fees, and any other City-related annexation fees. Annexation of SMP 39, SMP 40, and the Additional Annexation Only Parcels shall be completed no later than 18 months from the Effective Date of this Agreement, unless extended by written agreement of the Parties. If the annexation is not completed within this time period, subject to any agreed upon extension, the Agreement is null and void.

h. Developer shall not dispute or challenge the validity of the Pre-annexation and Development Agreement for SMP 39. Any legal challenge to the validity or enforceability of the Pre-annexation and Development Agreement for SMP 39 shall constitute a legal challenge to the Pre-annexation and Development Agreement for SMP 40 and the SMP 39/SMP 40 Project. In the event of a valid legal challenge, this Agreement shall be terminated after all appeals have been exhausted before a final court of judgment, or issuance of a final court order directed to the City to set aside, withdraw or abrogate the City's approval of this Agreement or the Pre-annexation and Development Agreement for SMP 39.

7. Periodic Review. Review of this Agreement shall be made annually, consistent with Government Code section 65865.1 and Livermore Development Code Chapter 9.04.

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8. Amendments. The Agreement may be amended in writing by the Parties, by mutual agreement, consistent with the procedures set forth in the Development Agreement Statutes and the Livermore Development Code, as they are amended from time-to-time.

9. Force Majeure. The Term of this Agreement shall be extended by, and the performance by any Parties of their obligations hereunder (other than for payment of money) shall be excused during, any period of "Force Majeure" as hereinafter defined. "Force Majeure" means a delay caused by any labor disputes or strikes, labor or material shortages or embargoes, pandemic, fire, unusual delay in transportation, earthquakes, floods, tornadoes or extreme wind or other adverse weather conditions not reasonably foreseeable by Developer, or material adverse underground conditions not reasonably foreseeable by Developer.

10. Remedies for Default. If a Party is in default under this Agreement, another Party may pursue one or more of the following courses of action after providing 30 days' written notice to the purportedly defaulting Party (or such longer period as may be required to cure the default, so long as such Party commences the cure within such 30-day period and diligently pursues the cure to completion): (a) waive the default; (b) in the City's case, pursue administrative remedies, including denial or otherwise withholding issuance of building permits, certificates of occupancy, or other approvals; (c) pursue judicial remedies; or (d) terminate this Agreement. Any purported default by a Party hereunder shall be subject to, and tolled by, any event of Force Majeure that prevents such Party from performing the act necessary to avoid or cure such purported default. Any such tolling shall end at the termination of the event of Force Majeure.

11. Termination. This Agreement shall terminate upon the earlier of (i) expiration of the Term, or (ii) in the event that SMP 39, SMP 40, and the Additional Annexation Only Parcels are not annexed into the City in accordance with Section 5(g) of this Agreement (iii) when the SMP 39/SMP 40 Project has been completed and all of Developer's obligations have been fully satisfied as reasonably determined by the City, or (iv) after all appeals have been exhausted before a final court of judgment, or issuance of a final court order directed to the City to set aside, withdraw or abrogate the City's approval of this Agreement or any material part thereof, or the Pre-annexation and Development Agreement for SMP 39 or any material part thereof. Upon termination of this Agreement as to the SMP 39/SMP 40 Project, at the request of Developer, the City shall record a Notice of Termination for each affected parcel in a form satisfactory to the City Attorney in the Office of the Alameda County Recorder. In the event this Agreement is terminated, neither party shall have any further rights or obligations hereunder except for those obligations of Developer set forth in Section 12 (No Damages Relief) and Section 16 (Legal Action; Attorneys' Fees).

12. Mortgagee Protection.

    a. This Agreement shall not prevent or limit Developer in any manner, at Developer's sole discretion, from encumbering the Property or any portion thereof or any improvement thereon by any mortgage, deed of trust, or other security device securing financing with respect to the Property ("Mortgage"). This

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Agreement shall be superior and senior to any lien placed upon the Property or any portion thereof after the date of recording this Agreement, including the lien of any Mortgage. Notwithstanding the foregoing, no breach hereof shall defeat, render invalid, diminish, or impair the lien of any Mortgage made in good faith and for value, but all of the terms and conditions contained in this Agreement shall be binding upon and effective against and inure to the benefit of any person or entity, including any deed of trust beneficiary or mortgagee ("Mortgagee") who acquires title to the Property, or any portion thereof, by foreclosure, trustee's sale, deed in lieu of foreclosure, or otherwise.

b. *Liability for Past Defaults*. Any Mortgagee, including the successful bidder at a foreclosure sale, who takes title and possession of the Property, or any portion thereof, pursuant to such foreclosure, shall take the Property, or portion thereof, subject to the provisions of this Agreement; provided, however, in no event shall such Mortgagee be liable for any defaults or monetary obligations of Developer arising prior to acquisition of title to the Property by such Mortgagee. Notwithstanding the preceding sentence, in no event shall any such Mortgagee or its successors or assigns be entitled to a building permit, final inspection, or occupancy certificate until all fees and other monetary obligations due under this Agreement have been paid to the City and any other existing defaults under this Agreement that are reasonably subject to cure are cured.

c. *Notice of Default to Mortgagee; Right of Mortgagee to Cure*. If City receives a notice from a Mortgagee requesting a copy of any Notice of Default given to Developer hereunder and specifying the address for service thereof, then City shall deliver to such Mortgagee, concurrently with service thereon to Developer, any notice given to Developer with respect to any claim by City that Developer has committed a default. If the City makes a determination of noncompliance hereunder, City shall likewise serve notice of such noncompliance on such Mortgagee concurrently with service thereof on Developer. Each Mortgagee shall have the right (but not the obligation) during the same period available to Developer to cure or remedy, or to commence to cure or remedy, the event of default claimed or the areas of noncompliance set forth in City's notice.

13. No Damages Relief. The Parties acknowledge that the City would not have entered into this Agreement were it exposed to damages claims from Developer for any breach thereof. As such, the Parties agree that in no event shall Developer be entitled to recover damages against City for breach of this Agreement. To the extent permitted by law, specific enforcement of this Agreement, including specific performance of Developer's payment obligations set forth in Sections 4(b) and 4(c) and the City's TIF credit obligations set forth in Exhibit F, is the proper and desirable remedy.

14. Recordation: Binding Effect. This Agreement shall be recorded in the office of the Alameda County Recorder and shall be binding upon and inure to the benefit of any successors in interest to the Parties. The Parties acknowledge that, as of the date of preparing this Agreement, the Property is owned in fee by Seller and that Seller shall have all rights and obligations of "Developer" under this Agreement.

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15. Release Upon Transfer. Upon the sale, transfer, or assignment, in whole or in part, of Developer's right and interest to all or any portion of the Property, Developer shall be released from its obligations hereunder with respect to the portion so conveyed, provided: (i) Developer (or transferee) was not in default of this Agreement at the time of conveyance, (ii) Developer provided to City prior written notice of such transfer, and (iii) with respect to sale or transfer of any lot that has not been fully improved, the transferee executes and delivers to City a written assumption agreement in which: (a) the name and address of the transferee is set forth, and (b) the transferee expressly assumes the obligations of Developer under this Agreement as to the portion of the Property conveyed. Failure to deliver a written assumption agreement hereunder shall not negate, modify, or otherwise affect the liability of any transferee pursuant to the provisions of this Agreement.

16. Timing of Development.

    a. Because the California Supreme Court held in *Pardee Construction Co. v. City of Camarillo*, 37 Cal.3d 465 (1984), that the failure of the parties therein to provide for the timing of development resulted in a later adopted initiative restricting the timing of development to prevail over the parties' agreement, it is the Parties' intent to avoid that result by acknowledging, that unless provided for in this Agreement, Developer shall have the right (without obligation) to develop the Property in such order and at such rate and at such times as Developer deems appropriate within the exercise of its subjective business judgment, subject to the terms, requirements and conditions of the Entitlements and this Agreement.

    b. Developer will use its best efforts, in accordance with its own business judgment and taking into consideration market conditions and other economic factors influencing Developer's business decision, to commence or to continue development, and to develop the Project in a regular, progressive, and timely manner in accordance with the terms, requirements and conditions of the Entitlements and this Agreement.

17. Legal Action; Attorneys' Fees. If the City chooses to defend any third party claim or suit challenging any action taken by the City with regard to this Agreement or any procedure or aspect of the City's approval of the development of the SMP 40 Development, including the environmental review process, the Developer in its capacity as either Developer or owner of the Property agrees to reimburse the City for the City's reasonable attorneys' fees, expert witness fees, and related costs as the City may incur in connection with its retention of outside counsel, and for any award of court costs or fees against the City. The City has the right to choose and retain such legal counsel as the City deems appropriate. After expenses reach $100,000, and each $100,000 thereafter, the Parties will confer to review the status of the litigation and their options for proceeding or settling, and they will negotiate in good faith about how the expenses will be allocated. The Developer, in its capacity as the Developer or owner of the Property, shall have no obligation to reimburse the City for costs incurred after the date on which the Developer or owner of the Property give the City written notice of their decision to settle a case, even if the City does not agree to the settlement. If legal action is brought by one of the

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Parties to enforce a provision of this Agreement, the prevailing party is entitled to reasonable attorneys' fees, expert witness fees, and court costs.

18. Notices. The address of each party for the purpose of all notices permitted or required by this Agreement is as follows:

To City:	City of Livermore 1052 South Livermore Avenue Livermore, CA 94550 Attention: Community Development Director and Ashley Vera, Senior Planner
With a copy to:	City Attorney City of Livermore 1052 South Livermore Avenue Livermore, CA 94550
To Developer:	Overton Moore Properties 19700 South Vermont Avenue, Suite 101 Torrance, CA 90502 Attention: Timur Tecimer
With a copy to:	Cox, Castle & Nicholson LLP 50 California Street, Suite 3200 San Francisco, CA 94111 Attention: Christian Cebrian
To Seller:	SMP-40, LLC 1459 18th St #317 San Francisco, CA 94107 Attention: Jennifer Jimenez-Cruz
With a copy to:	Allen Matkins Three Embarcadero Center 12th Floor San Francisco, CA 94111 Attention: Marshall Wallace

The written address of each Party set forth above may be changed by written notice given not less than five (5) days prior to the date such change is to be in effect. All notices under this Agreement shall be in writing, shall be properly addressed, and shall be sent by personal delivery, United States mail (registered, certified, or Express Mail, return receipt requested and postage prepaid), or by overnight courier delivery service. All such notices shall be considered delivered: (i) if personally delivered, on the date of delivery; (ii) if sent by United States mail in the manner prescribed above, on the date shown on the return receipt for acceptance or rejection; or (iii) if sent by overnight courier delivery

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service, on the date of delivery or attempted delivery as shown by the written delivery record of such service.

19. Severability; Choice of Law If any term, provision, condition, or covenant of this Agreement, or the application thereof to any Party or circumstances, shall to any extent be held invalid or unenforceable, the remainder of the instrument, or the application of such term, provision, condition, or covenant, or the application of such term, provision, condition, or covenant to persons or circumstances other than those as to whom or which it is held invalid or unenforceable, shall not be affected thereby and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law. This Agreement shall be governed by the laws of the State of California.

20. Covenants Run with the Land. All of the terms, provisions, covenants, conditions, rights, powers, duties and obligations contained in this Agreement shall be binding upon the parties and their respective heirs, successors and assigns acquiring any portion of the Property and shall inure to the benefit of the parties and their respective heirs, successors and assigns.

21. No Third Party Beneficiaries. This Agreement is entered only for the benefit of the Parties executing this Agreement, their successors in interest. This Agreement is not for the benefit of any other individual, entity or person. Nothing herein shall be construed to create any right of any third party to enforce this Agreement or to seek any benefit therefrom.

22. Time Is of the Essence. Time is of the essence for each provision of this Agreement for which time is an element.

23. Certificate of Compliance. Any Party may, at any time, request that the City indicate in writing: (i) whether this Agreement is in full force and effect; (ii) whether this Agreement has been amended or modified, and if so amended, the nature of any such amendments; or (iii) whether to the best of City's knowledge the requesting Party is in default in the performance of any of its obligations under this Agreement, and if in default, the nature of any such default. City shall endeavor in good faith to respond to any such request within thirty (30) days following the receipt thereof. The Parties shall be entitled to one certificate of compliance per year without any fee being assessed by the City. For any additional certificates of compliance requested in a single year, the City may charge the requesting party a reasonable fee related to the actual cost to prepare the certificate.

24. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which constitute one and the same instrument.

[Signatures on following page]

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IN WITNESS WHEREOF, the Parties have signed this Pre-annexation and Development Agreement on the dates indicated below.

DEVELOPER

LIVERMORE INDUSTRIAL PARTNERS 40, LLC

By: DocuSigned by: Timur Tecimer D96DF47935D5472...

Date: 3/4/2024 Title: manager

SELLER

SMP-40, LLC

By: _____

Date: _____ Title: _____

CITY OF LIVERMORE

By: _____

Date: _____ Title: _____

Attest:

_____

City Clerk

Approved to as Form:

_____

Assistant/City Attorney

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Exhibits:

A SMP 40 Property Description

B SMP 40 Development Description

C Site Plan for SMP 40 Property

D Planned Development-Industrial (PD-I) 22-001 Zoning Standards

E Trail Overcrossing and Trail Connections Site Plan and Preliminary Design Details

F Trail Overcrossing and Trail Connections Credits

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EXHIBIT A

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE UNINCORPORATED AREA, IN THE COUNTY OF ALAMEDA, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

TRACT ONE:

LAND DESCRIPTION OF REAL PROPERTY SITUATE IN THE UNINCORPORATED AREA OF COUNTY OF ALAMEDA, AND STATE OF CALIFORNIA; AND BEING ALL OF THAT 158.73 ACRE PARCEL OF LAND DESCRIBED IN A QUITCLAIM DEED TO PLEASANTON GRAVEL COMPANY RECORDED ON APRIL 16, 2004 AS INSTRUMENT NO. 2004-162090QFFICIAL RECORDS OF ALAMEDA COUNTY, AND BEING A PORTION OF THAT 307.88 ACRE PARCEL OF LAND DESCRIBED IN A QUITCLAIM DEED TO PLEASANTON GRAVEL COMPANY RECORDED ON NOVEMBER 20, 1992 AS INSTRUMENT NO. 1992-379868 OFFICIAL RECORDS OF ALAMEDA COUNTY, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE SAID 307.88 ACRE PARCEL; THENCE ALONG THE WEST LINE OF THE 307.88 ACRE PARCEL FOR THE FOLLOWING TWO (2) COURSES: (1) NORTH 00° 21' 40" EAST - 735.72 FEET, AND (2) NORTH 37° 51'31" WEST - 48.48 FEET TO A POINT ON THE EAST LINE OF LINE OF PLOT 7, SAID PLOT IS DESCRIBED IN THE DECREE RENDERED BY THE THIRD JUDICIAL COURT OF ALAMEDA COUNTY, CASE NO. 1723, RECORDED APRIL 12, 1869, IN BOOK 40 OF DEEDS, AT PAGE 315 OFFICIAL RECORDS OF ALAMEDA COUNTY; THENCE ALONG SAID EAST LINER NORTH 00° 21' 40" EAST - 2104.93 FEET TO A POINT ON THE SOUTHERLY LINE OF THE SANTA RITA RANCHO AND THE SAID 158.73 PARCEL; THENCE ALONG SAID SOUTH LINE, SOUTH 66° 54' 34" WEST - 1065.68 FEET TO THE SOUTHWEST CORNER OF THE 1 58.73 PARCEL; THENCE ALONG THE WEST LINE OF THE 1 58.73 PARCEL. NORTH 00° 28' 57" EAST - 2485.47 FEET TO THE NORTHWEST CORNER OF THE 158.73 PARCEL; THENCE ALONG THE NORTH LINE OF THE 158.73 PARCEL, NORTH 89° 39' 52" EAST - 4496.04 FEET TO THE NORTHEAST CORNER OF THE 158.73 PARCEL; THENCE ALONG THE EAST LINES OF THE 158.73 PARCEL AND THE 307.88 ACRE PARCEL FOR THE FOLLOWING TWO (2) COURSES: (1) SOUTH 00° 16' 36" WEST - 592.26 FEET, AND (2) SOUTH 00° 09' 36" WEST - 3901.54 FEET TO THE SOUTHEAST CORNER OF THE 307.88 ACRE PARCEL; THENCE ALONG THE SOUTH LINE OF THE 307.88 ACRE PARCEL, SOUTH 82° 14' 00" WEST - 3543.49 FEET TO THE POINT OF BEGINNING.

PURSUANT TO CERTIFICATE OF COMPLIANCE AND BOUNDARY ADJUSTMENT RECORDED OCTOBER 30, 2014 AS INSTRUMENT NO. 2014262802, OF OFFICIAL RECORDS.

APN: 904-0009-001-00, 904-0003-001-05 AND 946-1350-006-02

TRACT TWO:

PARCEL A:

A PORTION OF PLOT 10 OF THE BERNAL PORTION OF RANCHO EL VALLE DE SAN JOSE, AS SHOWN ON THE MAP ACCOMPANYING THE REPORT OF THE REFEREE IN THE ACTION FOR PARTITION OF SAID RANCHO THIRD DISTRICT COURT OF ALAMEDA COUNTY, CASE NO. 1723, LYING NORTHERLY OF THE RIGHT OF WAY OF THE WESTERN PACIFIC RAILROAD, DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE LINE DIVIDING PLOTS 10 AND 20 OF THE BERNAL PORTION OF RANCHO EL VALLE DE SAN JOSE, WITH THE NORTHERN LINE OF THE RIGHT OF WAY OF THE WESTERN PACIFIC RAILROAD; THENCE SOUTH 82° 02' WEST ALONG SAID NORTHERN LINE OF SAID RIGHT OF WAY 2636.70 FEET (39.95 CHAINS); THENCE NORTH 0° 01' WEST 1578.06 FEET (23.91 CHAINS) TO THE LINE DIVIDING PLOTS 10 AND 11 OF SAID RANCHO; THENCE NORTH 89° 38' EAST ALONG SAID DIVIDING LINE 2612.28 FEET (39.58 CHAINS) TO THE WESTERN LINE OF PLOT 20 OF SAID RANCHO; AND THENCE SOUTH 0° 06' EAST ALONG THE LINE DIVIDING SAID PLOTS 10 AND 20, A DISTANCE OF 1230.24 FEET (18.64) CHAINS TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM THAT PORTION OF THE ABOVE DESCRIBED PROPERTY LYING WITHIN THE

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EXHIBIT A
(Continued)

LINES OF A 30 FOOT STRIP ALONG THE WESTERN LINE OF SAID PLOT 10 AS DESCRIBED IN THE DEED TO MAAS LUDERS, RECORDED JANUARY 4, 1888, BOOK 339, DEEDS, PAGE 338, ALAMEDA COUNTY RECORDS. SAID EXCEPTION ALSO DESCRIBED AS PARCEL B, PARCEL MAP 5605, FILED SEPTEMBER 21, 1989, BOOK 187, PAGE 29 OF MAPS, ALAMEDA COUNTY RECORDS.

ALSO EXCEPTING THEREFROM ALL THAT PORTION DESCRIBED AS PARCEL 1 (5015-1) IN THAT CERTAIN “FINAL ORDER IN EMINENT DOMAIN” IN FAVOR OF THE CITY OF LIVERMORE, A CERTIFIED COPY OF WHICH WAS RECORDED AUGUST 7, 2001, AS INSTRUMENT NO. 2001287044, OF OFFICIAL RECORDS.

THE ABOVE REFERENCED LEGAL DESCRIPTION WAS CONFIRMED BY THAT CERTAIN DOCUMENT ENTITLED "CERTIFICATE OF COMPLIANCE – PLN2018-00162" RECORDED OCTOBER 10, 2018, INSTRUMENT NO. 2018196923, OF OFFICIAL RECORDS.

APN: 904-0010-002-02

PARCEL B:

REAL PROPERTY IN THE CITY OF LIVERMORE, COUNTY OF ALAMEDA, STATE OF CALIFORNIA, BEING A PORTION OF PARCEL A OF PARCEL MAP 3750 FILED FEBRUARY 10, 1982, IN BOOK 131 OF PARCEL MAPS, PAGES 86-87, SERIES NO. 82-020636, RECORDS OF ALAMEDA COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF PLOT 8 COMMON WITH THE SOUTHWEST CORNER OF PLOT 11 AND THE NORTHWEST CORNER OF PLOT 10 OF THE BERNAL PORTION OF THE RANCHO EL VALLE DE SAN JOSE, AS SAID POINT IS SHOWN ON AFORESAID PARCEL MAP 3750 (82-020636); THENCE ALONG THE SOUTH LINE OF PLOT 11 SOUTH 89° 25' 04" EAST, 30.00 FEET; THENCE LEAVING SAID SOUTH LINE OF PLOT 11 SOUTH 0° 56' 07" WEST, 1577.369 FEET TO A POINT ON THE NORTHERLY LINE OF THE WESTERN PACIFIC RAILROAD RIGHT OF WAY; THENCE ALONG SAID WESTERN PACIFIC RAILROAD RIGHT OF WAY SOUTH 83° 01' 37" WEST, 30.288 FEET TO A POINT ON THE EAST LINE OF AFORESAID PLOT 8 OF THE BERNAL PORTION OF THE RANCHO EL VALLE DE SAN JOSE; THENCE ALONG SAID EAST LINE OF PLOT 8 NORTH 0° 56' 07" EAST, 1581.351 FEET TO THE POINT OF BEGINNING.

BEING PARCEL B OF PARCEL MAP 5605, FILED SEPTEMBER 21,1989, MAP BOOK 187, PAGES 29 AND 30, ALAMEDA COUNTY RECORDS.

APN: 904-0010-007-00

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SMP 40 Development Description

Assessor Parcel Number 904-10-2-2 is also known as SMP 40 ("SMP 40 Property"). The aforementioned SMP number references the Surface Mining Permit (SMP) numbers applicable to the site. The Surface Mining Permit for the SMP 40 Property was approved by Alameda County in 2004 to allow for the extraction of sand and gravel (i.e., aggregate) within the site; however, aggregate mining has not occurred within the SMP 40 Property. The SMP 40 Property is approximately 41 acres and is located within unincorporated Alameda County, the City of Livermore Sphere of Influence (SOI), and the City of Livermore South Livermore Urban Growth Boundary (UGB). The Property is zoned Agricultural by Alameda County with a County General Plan designation of Industrial. The SMP 40 Property has a City of Livermore General Plan designation of Open Space/Sand and Gravel.

Surrounding existing uses include the Oaks Business Park to the north; single-family residences to the east, across Isabel Avenue/SR 84; the Arroyo Mocho, open fields, railroad tracks, and gravel quarries associated with mining operations to the south, across Stanley Boulevard; and vacant land, gravel quarries, and industrial ponds associated with mining operations to the west.

Developer shall construct two light industrial buildings on the SMP 40 Property totaling up to 759,275 square feet (sf) of new building area and associated internal roadways, parking, landscaping, utilities, on- and off-site trail improvements, and other improvements ("SMP 40 Development"). The approximately 470,530-sf Building 1 shall be located on the western portion of the SMP 40 Property and include a total of 68 loading dock doors along the western and eastern sides of the building (34 on each side). The approximately 288,750-sf Building 2 would be located on the eastern portion of the SMP 40 Property and include a total of 62 loading dock doors along the northern and southern sides of the building (34 on the north and 28 on the south). A total of 742 vehicle parking stalls and 90 trailer parking stalls shall be provided at the SMP 40 Property. Each building shall have a maximum height of 50 feet or 55 feet with a Conditional Use Permit.

The SMP 40 Development shall comply with the development requirements including land use, building and landscape setbacks, height, lot coverage, parking, and other required standards as set forth in the Planned Development - Industrial 22-001 (PD-I 22-001) zone. Access to the SMP 40 Property shall be provided through new internal roadway connections to Atlantis Street and Challenger Street to the north, which currently serve the existing Oaks Business Park. The new roadway connections shall be located between Buildings 1 and 2 and shall provide access to the internal drive aisles around each building.

The SMP 40 Development includes a paved at-grade, on-site trail along the boundaries of the SMP 40 Property, consistent with the City's Active Transportation Plan. Specifically, the on-site trail shall extend from the northeastern corner of the site, along the SMP 40 Property's eastern, southern, and western boundaries, before connecting to the existing off-site trail at the northwestern corner of SMP 40 Property, which extends along the west side of the Oaks Business Park to the north and connects to West Jack London Boulevard. The portion of the on-

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site trail located along the SMP 40 Property's eastern and southern boundaries shall be located within a Zone 7 easement north of the Arroyo Mocho.

In addition to the on-site trail required on the SMP 40 Property, an off-site grade-separated overcrossing (bridge) of Isabel Avenue/State Route 84 north of the existing railroad tracks and Stanley Boulevard is a required public benefit ("the Trail Overcrossing"). The SMP 40 Development includes construction of trail connections from the terminus of the bridge to the existing off-site Arroyo Mocho trail east of Isabel Avenue and to the future on-site trail along the SMP 40 Property frontage to the west of Isabel Avenue ("the Trail Connections"). The Trail Overcrossing shall have a span of approximately 190-210 feet and shall run parallel with the existing railroad tracks. The materials shall consist of a fabricated truss and a weathered steel span bridge with concrete flooring. The Trail Overcrossing shall be supported by two cast-in-place concrete abutments which are supported by cast-in-drilled-hole concrete piles. An approach retaining wall shall be required on the east end. The Trail Overcrossing shall be cambered so it will drain from the middle to each end and then will drain to the edges and connect to Caltrans storm drains. A site plan and preliminary design details are provided in **Exhibit E**. Final designs shall be conditioned to meet the requirements of applicable permitting agencies. Permits shall be required from the City of Livermore and Caltrans. In addition, an encroachment permit will be required from Caltrans. The Trail Overcrossing and Trail Connections shall be designed as described above or with similar design features as approved by the Community Development Director. The Trail Overcrossing and Trail Connection design shall include lighting, cameras, and/or other safety and security measures as required by the City's Chief of Police and City Engineer.

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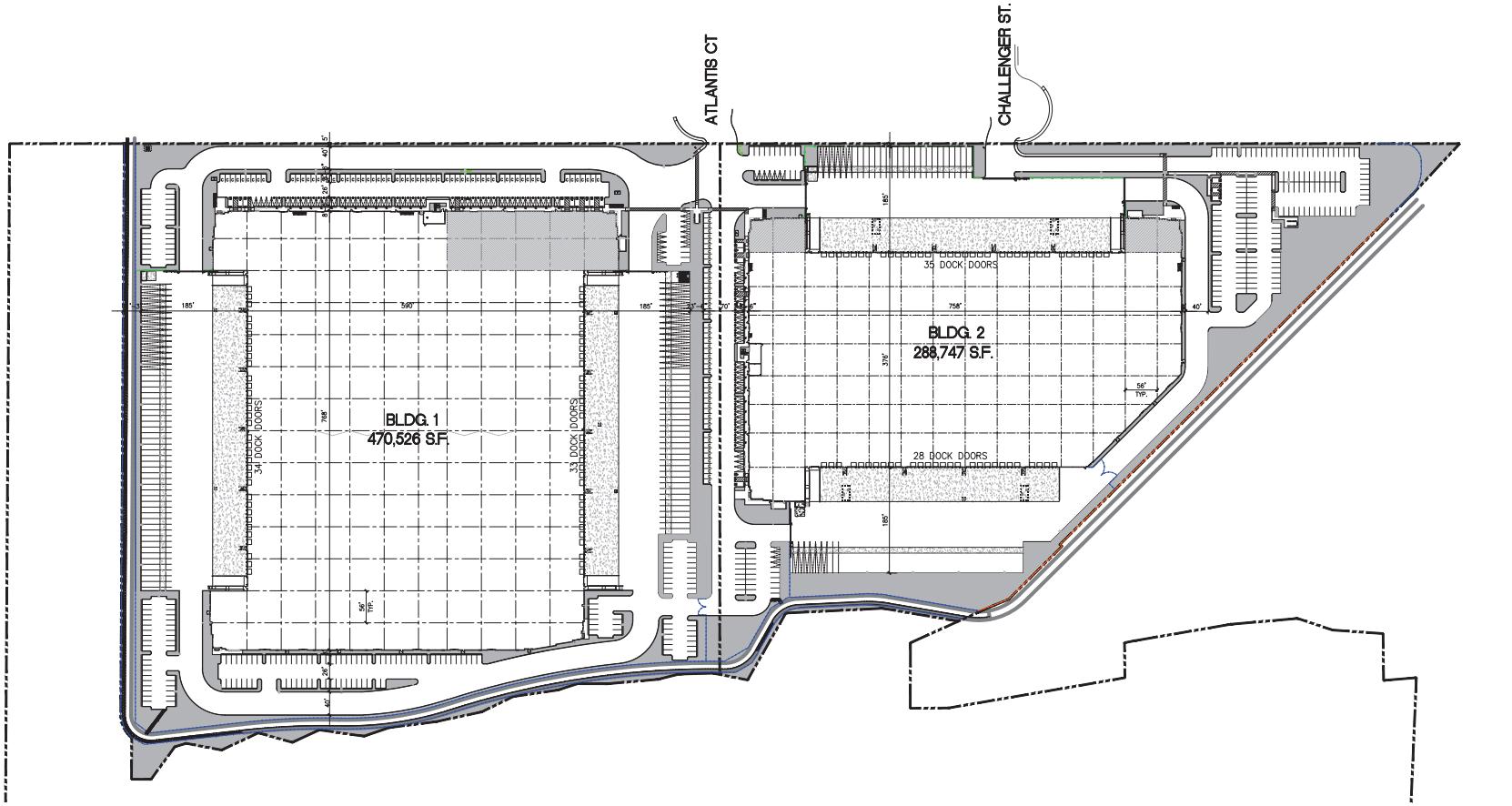
ATTACHMENT 3



MASTER SITE PLAN
scale: 1" = 80'-0"

SCALE: 1" = 80'-0"
0 80' 160' 240'
PLAN NORTH

NEW METAL FENCE AND GATE

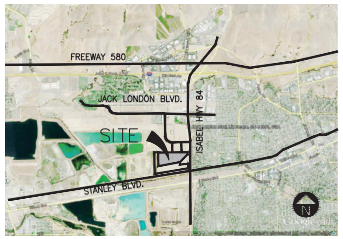
EXISTING CHAIN LINK FENCE

NEW CHAIN LINK FENCE AND GATE

SITE PLAN GENERAL NOTES

- CONCRETE PAVING, SEE "C" DRWGS. FOR THICKNESS
- STANDARD PARKING STALL 9' X 18' (16' WITH 2' OVERHANG)
- STANDARD PARKING STALL W/ EVCS INSTALLED
- STANDARD PARKING STALL W/ CONDUITS ONLY
- TRAILER PARKING (10' X 53')
- TRAILER PARKING W/ CONDUITS ONLY
- LANDSCAPED AREA
- NON-ACCESSIBLE PATH
- COMPACT PARKING STALL 9' X 16' (14' WITH 2' OVERHANG)
- ACCESSIBLE PARKING STALL (9' X 18') ACCESSIBLE AISLE SEE DETAIL 11/AD.1
- ACCESSIBLE PARKING (VAN) STALL (9' X 18') + 8' W/ ACCESSIBLE AISLE
- PATH OF TRAVEL. MINIMUM WIDTH TO BE 4', SLOPE NOT TO EXCEED 5% IN THE DIRECTION OF TRAVEL AND CROSS SLOPE NOT TO EXCEED 2%, SEE CIVIL FOR GRADING PLAN

VICINITY MAP



PROJECT DATA

SITE AREA	BLDG. 1	BLDG. 2	TOTAL
	1,047,191	737,604	1,784,745 s.f.
	24.04	16.93	40.97 ac
BUILDING AREA			
Office	30,000	13,000	43,000 s.f.
Warehouse	440,526	275,747	716,273 s.f.
TOTAL	470,526	288,747	759,273 s.f.
COVERAGE(45% Max.)	44.9%	39.1%	42.5%
AUTO PARKING REQUIRED			
Office: 1/300 s.f.	100	44	144 stalls
Whse: 1/1,200 s.f.	368	230	598 stalls
TOTAL	468	274	742 stalls
EV REQUIRED			
EV Capable + EVCS (20% of total)	94	56	150 stalls
- EV Capable w/ conduits only(12% of total)	[47]	[28]	stalls
- EVCS (10% of total)	[47]	[28]	stalls
~ Standard EVCS	44	25	
~ ADA: EV Parking w / EVCS (9' x 20' + 5' Aisle)	1	1	
~ ADA: EV Van Parking w / EVCS (12' x 20' + 5' Aisle)	1	1	
~ Ambulatory	1	1	
AUTO PARKING PROVIDED			
Standard (9'x 18')	186	187	373 stalls
Compact (8'x 16') 30% of total max	112	0	112 stalls
Accessible parking (9' x 18')	5	5	10 stalls
Accessible Van (9' x 18' +8' aisle)	4	3	7 stalls
EV Capable + EVCS (20% of total)	94	56	150 stalls
- EV Capable w/ conduits only(10% of total)	[47]	[28]	stalls
~ Standard EV Capable	17	16	
~ Trailer w / conduits	30	12	
- EVCS (10% of total		[47]	[28] stalls
~ Standard EVCS	44	25	
~ ADA: EV Parking w / EVCS (9' x 20' + 5' Aisle)	1	1	
~ ADA: EV Van Parking w / EVCS (12' x 20' + 5' Aisle)	1	1	
~ Ambulatory	1	1	
Standard Trailer (10' x 53')	67	23	90 stalls
TOTAL	468	274	742 stalls
BIKE RACKS REQUIRED/PROVIDED			
Long-term (5%)	24	14	38
Short-term (5%)	24	14	38
ZONING ORDINANCE FOR CITY			
Proposed Zoning Designation - Industrial (IC)			
SETBACKS			
Building			
Isabel Rd / 84 - 45' (increased to allow 40' max. ht.)			
New Interior St. - 30' (increased to allow 40' max. ht.)			
Rear/Side - None			
Landscape			
All required Yards shall be landscaped. If Parking lot is provided betw een building and street reduce LS at street by up to 10' and place removed LS at building adjacent to parking.			
MAXIMUM BUILDING HEIGHT ALLOWED			
40'			
MAXIMUM BUILDING HEIGHT REQUESTED			
50' (see 1-DAB-A3.1 & 2-DAB-A3.1 for proposed building height)			

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

REGISTERED ARCHITECT C-29457 3-31-25 RENEWAL DATE STATE OF CALIFORNIA

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK BUILDING 1

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	4STEL
MECHANICAL	ACIES
PLUMBING	ACIES
ELECTRICAL	ACIES
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: MASTER SITE PLAN

Project Number: 19177
Drawn by: DZ
Date: 11/21/2023
Revision:

Sheet: A1.0

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PLANNED DEVELOPMENT STANDARDS SMP 39 & SMP 40

Planned Development – Industrial (PD-I) 22-001

Reviewed by Planning Commission: March 5, 2024
Approved by City Council: March 25, 2024

Purpose: The purpose of establishing this Planned Development-Industrial (PD-I 22-001) District (District) is to regulate the development of ± 51.9 acres of land located on Jack London Boulevard, west of Oaks Business Park and south of Livermore Municipal Airport (commonly referred to as "SMP 39") and ± 41 acres of land located south of Oaks Business Park, at the south end of Atlantis Street and Challenger Street (commonly referred to as "SMP 40"), as shown in the attached figure (Figure 1). The intent of this District is to accomplish the following:

1. PD-I 22-001 is intended to provide an environment exclusively for and conducive to the development and protection of modern professional and administrative facilities, research institutions, manufacturing operations, experimental and testing laboratory and related uses, any similar employment generating high-end industrial users, all of a non-nuisance type.
2. The District is intended to provide for an aesthetically attractive working environment with park- and/or campus-like grounds, attractive buildings, employee parking, and other amenities appropriate to a mix of office and industrial uses.
3. The District is intended to establish development standards and regulations consistent with the intent of the Low Intensity Industrial General Plan designation.
4. Any land use that utilizes hazardous materials shall be subject to the regulations of Section 6.02.040, Hazardous Materials, of the Livermore Development Code, as it exists now or is amended in the future.
5. Development shall be in conformance with the requirements of the Livermore Development Code as it exists now or is amended in the future, except as modified by the following regulations.
6. Development is subject to the Citywide Design Standards and Guidelines as they exist now or may be amended in the future unless otherwise modified by the following regulations.

A. Principal Permitted Uses:

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The following are the principal permitted uses for SMP 39[1] and SMP 40:

1. Research and development facilities
2. Professional and administrative offices
3. Experimental and testing laboratories
4. Manufacture of electric and electronic circuits, instruments, and devices
5. Manufacture of pharmaceutical products or life science facility, not exceeding Biosafety Level 2[2]
6. Medical diagnostic and manufacturing facilities
7. Manufacturing and assembly of motor vehicle parts, including but not limited to dashboards, parts, component systems, electrical connectors, sensors, panels, airbags, seats, tires, windows etc. for all vehicles and similar equipment (e.g. automobiles, motorcycle, construction equipment, farm equipment, buses).
8. Similar uses as determined by the Community Development Director to be of the same general character as the listed uses.

Additional Permitted Uses for SMP 39 only:

1. Restaurants, except fast food

Additional Permitted Uses for SMP 40 only:

1. Warehousing and distribution facilities, dry or refrigerated
2. Warehousing and distribution facility – E-commerce/Third Party Logistics (3PL)
3. Manufacturing, assembly, processing, storage, or packaging of products from previously prepared materials such as, but not limited to, cloth, plastic, paper, leather, and precious or semi-precious metals or stones, <u>but not including the following</u>:
   A. Operations such as saw and planing mills, any manufacturing uses involving primary production of wood, metal, or chemical products from raw materials, and similar uses
   B. Vehicle dismantling yards, scrap and waste yards
   C. Manufacturing, processing, storing, or packaging chemicals, petroleum, heavy agricultural products or other hazardous materials.

[1] SMP 39 and SMP 40 are located with the Airport Influence Area and the Livermore Airport Protection Area. Per the Alameda County Airport Land Use Compatibility Plan, the majority of SMP 39 is located in Safety Zone 6, with a portion of the site located in Safey Zone 3. The principal permitted land uses are intended to be located in buildings that are only within the portion of SMP 39 that is located in Safety Zone 6.

[2] Per the Centers for Disease Control and Prevention, Biosafety Level 2 laboratories involve work that poses moderate hazards to laboratory workers and the environment. Biosafety Level 2 laboratories require safety protocols to contain microbes and biological agents.

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4. Sale of heavy equipment and construction related vehicles and equipment, including associated repair, service, and parts distribution facilities. Showrooms related to this use may be a conditionally permitted ancillary use.
5. Similar uses as determined by the Community Development Director to be of the same general character as the listed uses.

B. Conditional Uses for SMP 39 and 40:

1. Public and quasi-public uses.
2. Manufacture of pharmaceutical products or life science facility, not exceeding Biosafety Level 3[3]
3. Similar uses as determined by the Planning Commission to be of the same general character as the listed uses.

Conditional Uses for SMP 39 only:

1. Fast-food businesses, banks, personal services, or goods required for the convenience and support of occupants of uses in the surrounding district(s).
2. Warehouse and distribution facilities, including E-commerce/Third Party Logistics (3PL) uses, with the condition that these uses may only occupy up to 20 percent of the total buildable site area.
3. Sale of heavy equipment and construction related vehicles and equipment, including associated repair, service, and parts distribution facilities, provided they are manufactured and/or sold on-site. Showrooms related to this use may be a conditionally permitted ancillary use.
4. Similar uses as determined by the Planning Commission to be of the same general character as the listed uses.

C. Accessory Uses Permitted on SMP 39 and 40:

1. Signs subject to the requirements established by the Livermore Development Code, as well as the Citywide Design Standards and Guidelines, as it exists now or is amended in the future.
2. Accessory uses and buildings customarily appurtenant to a permitted use.
3. Living quarters determined by the Community Development Director to be necessary for surveillance purposes.
4. Fuel stations subject to the requirements of Section 6.03.160, Vehicle Services, of the Livermore Development Code, as it exists now or is amended in the future.

[3] Per the Centers for Disease Control and Prevention, laboratories designated Biosafety Level 3 involve work that poses a safety hazard greater than Biosafety Level 2 laboratories, defined above. Biosafety Level 3 laboratories require additional safety protocols beyond those required for Biosafety Level 2 laboratories to contain microbes and biological agents.

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D. Special Development Requirements for SMP 39 and 40:

1. Uses shall be designed and integrated into the site in a manner that maintains and is complementary to the corporate and professional character of the nearby Oaks Business Park.
2. Outdoor service and storage yards shall be screened from public view consistent with Livermore Development Code Section 6.03.100, Outdoor Storage, as it exists today or is amended in the future.
3. For SMP 40 only: Commercial/Industrial buildings shall be located a distance of at least 500 feet from Isabel Avenue.

E. Site Development Regulations for SMP 39 and 40:

The following minimum requirements shall be observed, except where increased for conditional uses:

1. Lot Area: Twenty thousand square feet
2. Lot Width: One hundred feet
3. Setbacks: Setback requirements are established below. Buildings shall not be permitted within required setbacks.

A. SMP 39

1) Front or Street Side: 40-feet on West Jack London Boulevard, and 30-feet on frontage roads and interior streets, except as required by subsection E.4. All required setbacks adjacent to streets shall be landscaped, except for driveways, sidewalks, and trails that are found to be necessary for the efficient use of the property. Where a building front is visible from the street, a minimum five-foot wide landscaped strip abutting the foundation shall be included, allowing for necessary entrances.
2) Rear and Side: None.

B. SMP 40

1) Front or Street Side: 500-feet from Isabel Avenue, and 30-feet on frontage roads and interior streets, except as required by subsection E.4. All required setbacks adjacent to streets shall be landscaped, except for driveways and sidewalks that are found to be necessary for the efficient use of the property. Where a building front is visible from the street, a minimum five-foot wide landscaped strip abutting the foundation shall be included, allowing for necessary entrances
2) Rear and Side: None, except for a 20-foot setback from the top of the Arroyo Mocho bank on SMP 40 which should be determined from a 2.5:1 slope projection from the toe of

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channel/mining pit to the top, as required in the Environmental Impact Report for the project.

4. Height Regulations: The height of all on-site structures, including roof-top mechanical equipment, is limited to 50 feet or the height permitted by the Federal Aviation Administration (FAA) review under FAA regulations – Part 77, whichever is more restrictive. Upon providing a minimum 40-foot setback from street rights-of-way, a Conditional Use Permit may be requested to increase height to a maximum of 55 feet, or the height permitted under FAA regulations – Part 77, whichever is more restrictive. The height of pole-and building-mounted lights may be approved up to 28 feet by an administrative site plan and design review, if found necessary for the health and safety of a site designed for truck or other large vehicle maneuvering and documented by a light study to not cause glare off-site.
5. Lot Coverage: The building coverage maximum shall be 45 percent.

F. Signs

1. Industrial Uses. Signs for industrial uses shall be subject to the sign regulations contained in Livermore Development Code section 4.06.230 (sign standards for I-1, I-2 and I-3) and the Citywide Design Standards Guidelines as it exists now or is amended in the future.
2. Commercial Uses. Signs for commercial uses shall be subject to the sign regulations contained in Livermore Development Code section 4.06.170 (sign standards for CNB) and the Citywide Design Standards Guidelines as it exists now or is amended in the future.

G. Other Required Standards for SMP 39 and 40:

1. Noise. No use shall be permitted which creates an ambient noise level greater than 75 decibels (dBA) beyond the boundaries of the site, nor greater than 60 decibels at the boundary of a Residential District.
   A. On SMP 39, semi-truck access to the site (arrivals and departures) shall be limited to 96 trips between the hours of 10:00 PM and 7:00 AM.
   B. On SMP 40, semi-truck access to the site (arrivals and departures) shall be limited to 40 trips between the hours of 10:00 PM and 7:00 AM
   C. Between the hours of 10:00 PM and 7:00 AM single-event noise levels (e.g., backup alarm, truck brakes, etc.) shall not exceed 55 dBA, measured at the property line of the nearest residential use.
2. Air Pollution. All uses shall comply with regulations of the San Francisco Bay Area Air Pollution Control District.
3. Vibration, Heat, Glare, Electrical Disturbance. No use shall be permitted which creates noise, odors, vibrations, heat, glare, or electrical disturbances beyond the

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boundaries of the site. Lighting used to illuminate buildings, structures, uses, or parking and loading areas shall not be directed toward any public right-of-way.

4. Fire, Explosion. All uses shall provide adequate safety devices and adequate firefighting and fire suppression equipment to protect against fire, explosion, and other hazards.
5. Solid and Liquid Wastes. No solid or liquid waste discharges, other than permitted discharges into a public sewage disposal system, shall be permitted. The chemical composition and volume of industrial effluent discharged shall be subject to the wastewater permit requirements established by LMC Title 13, Division II. (Ord. 442 § 14.80).

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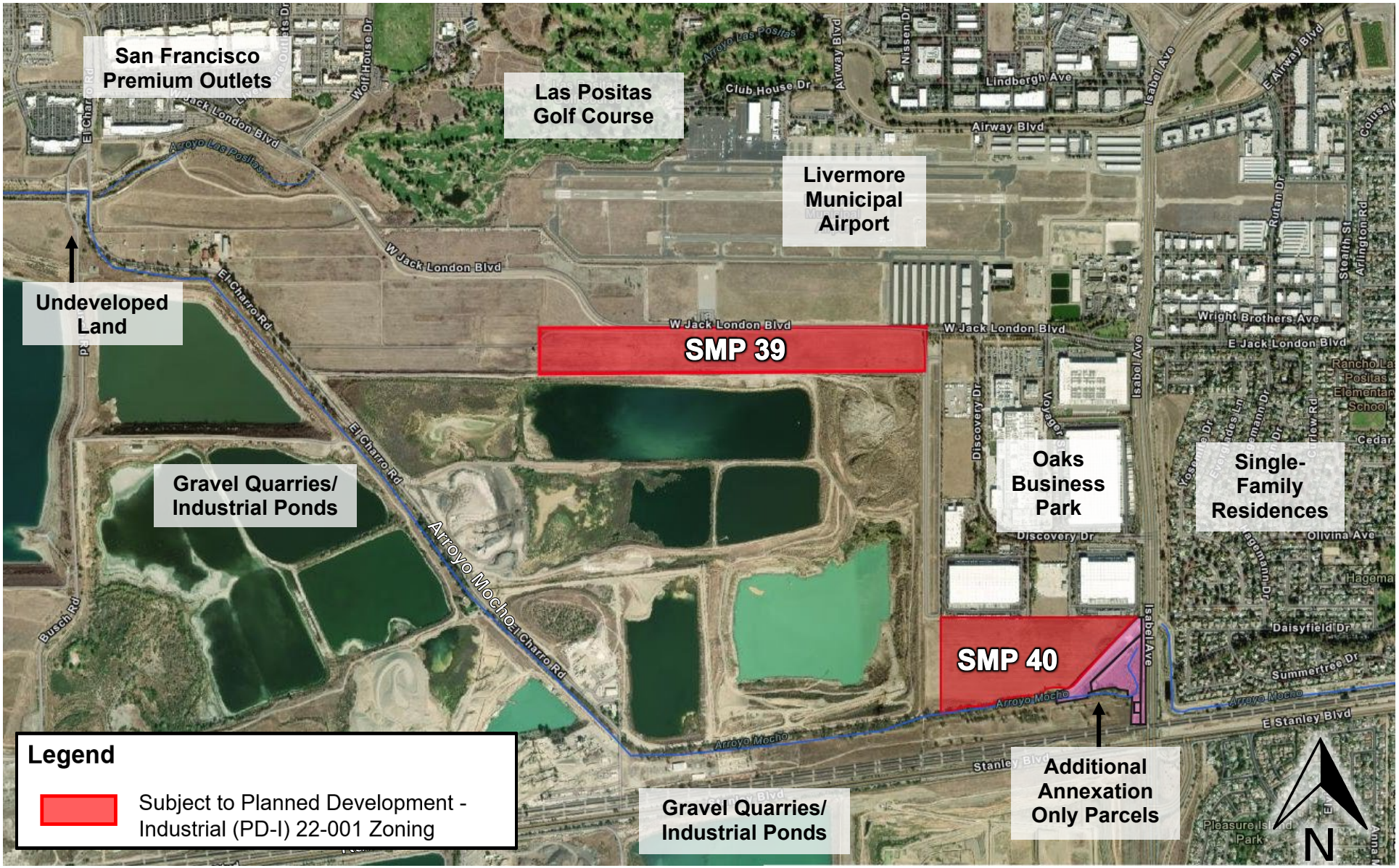
Figure 1



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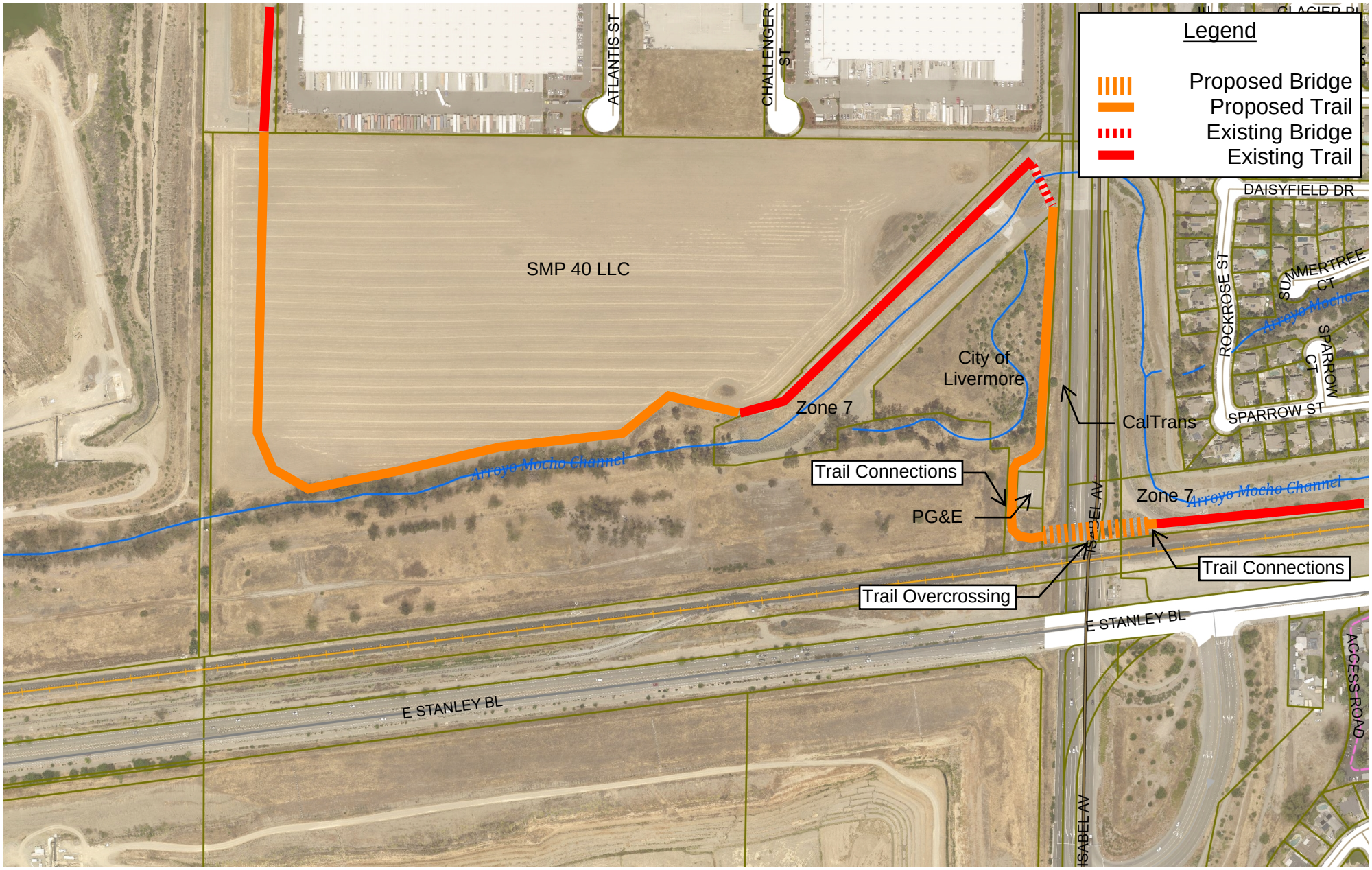
LIVERMORE CALIFORNIA

Preliminary Arroyo Bike Trail Connection - Bridge Over Isabel Avenue

ATTACHMENT 3



800.0 0 400.00 800.0 Feet

NAD_1983_2011_StatePlane_California_III_FIPS_0403_Ft_US
Livermore IT, GIS Services

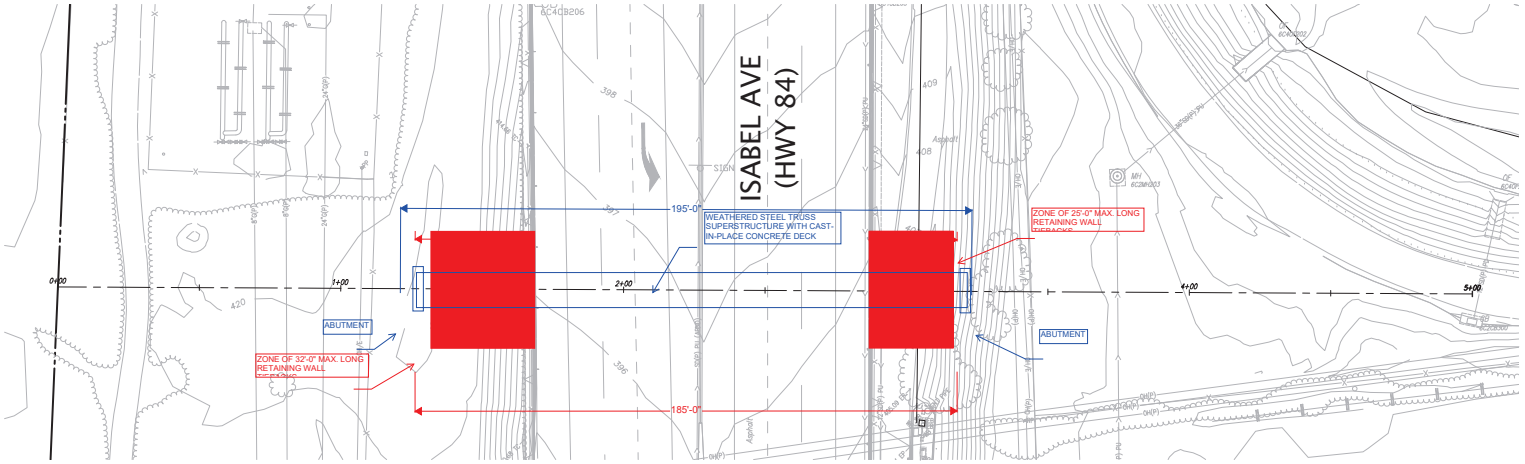
1: 4,800

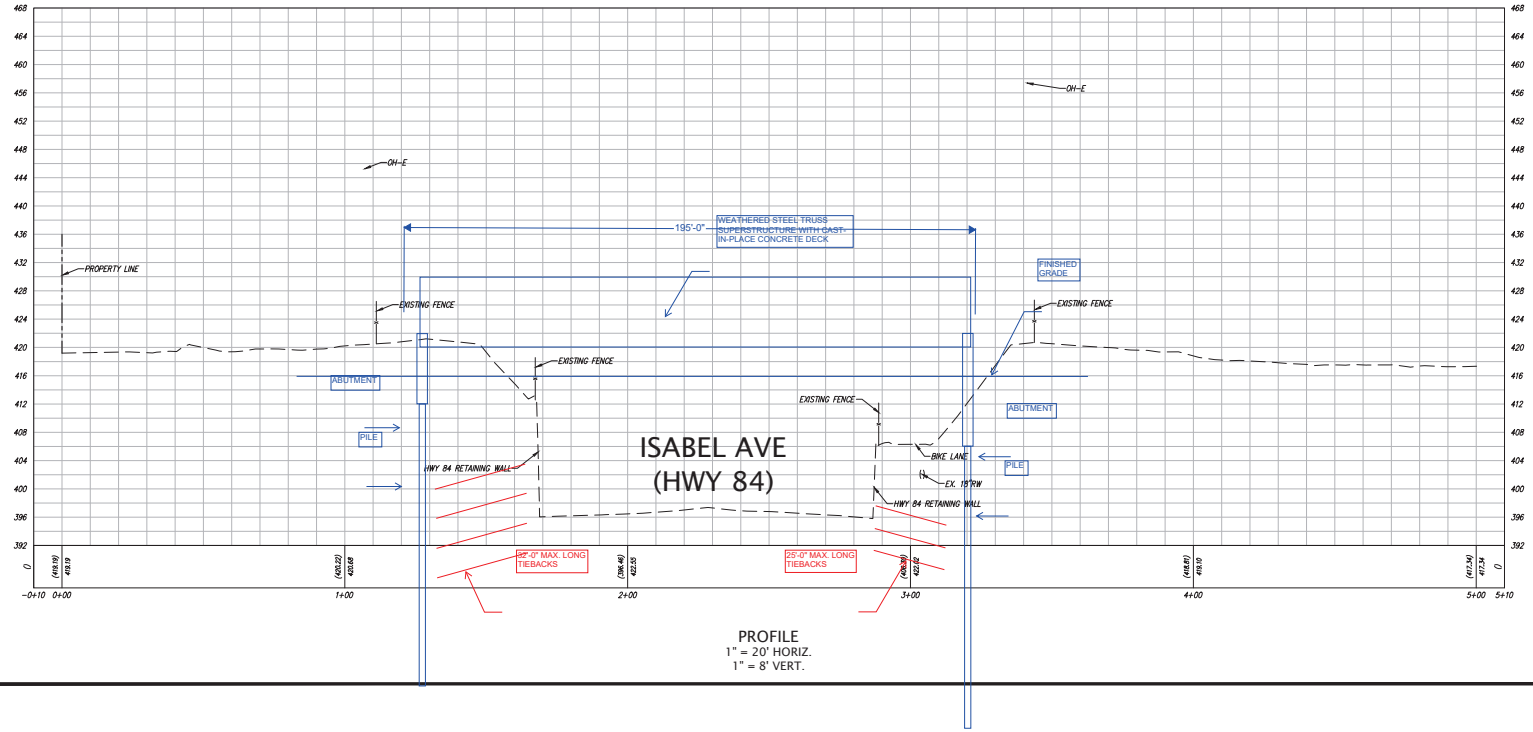
This map is based on City of Livermore GIS Information and reflects the most current information at the time of this printing. The map is intended for reference purposes only and the City and its staff is not responsible for errors or omissions.

Notes

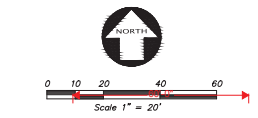
1/12/2024

ATTACHMENT 3





PROFILE
1" = 20' HORIZ.
1" = 8' VERT.



LEGEND

PROPOSED	EXISTING	
BW	BW	BACK OF WALK
CB	CB	CATCH BASIN
COTG	COTG	CLEANOUT TO GRADE
C	C	CONCRETE
DIP	DIP	DUCTILE IRON PIPE
ESMT	ESMT	EASEMENT
EW	EW	EDGE OF WALK
FB	FB	FACE OF BERM
FC	FC	FACE OF CURB
FW	FW	FACE OF WALL
FL	FL	FLOW LINE
GB	GB	GRADE BREAK
HP	HP	HIGH POINT
IE	IE	INVERT ELEVATION
LP	LP	LOW POINT
PV	P	PAVEMENT
POC	POC	POINT OF CONNECTION
RWL	RWL	RAINWATER LEADER
R	R	RIDGE
RE	RE	RIM ELEVATION
RD	RD	ROOF DRAIN
SL	SL	STREET LIGHT
SDJB	SDJB	STORM DRAIN JUNCTION BOX
SDMH	SDMH	STORM DRAIN MANHOLE
TC	TC	TOP OF CURB
TW	TW	TOP OF WALL

PASE MARKUPS2/5/20

NO.	REVISION	BY
△		
△		
△		
△		
△		

REGISTERED PROFESSIONAL ENGINEER
JOHN ADAM MANNOLE
No. 82365
CIVIL
STATE OF CALIFORNIA
PRELIMINARY

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

EXHIBIT - BRIDGE CROSSING
OF
SMP 40
FOR
LIVERMORE INDUSTRIAL PARTNERS 40 LLC
LIVERMORE, CALIFORNIA

DATE	JANUARY, 2024
SCALE	AS SHOWN
DESIGNER	JAM
DRAWN BY	KAS
JOB NO.	96562-54
SHEET	1
OF	1 SHEETS

Z:\1998-\96562-54\DWG\CIVIL\EXHIBITS\96562-54-EX-BRIDGE CROSSING.dwg 1-29-24 04:53:50 PM kshaw

EXHIBIT E

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Trail Overcrossing and Trail Connections Credits

The Developer's monetary contribution towards the costs of the Trail Overcrossing and Trail Connections shall equal Seven-Hundred-Fifty-Thousand Dollars ($750,000.00) (the "Developer Obligation"). The $750,000 Developer Obligation is in addition to the design and permitting costs the Developer is responsible as set forth in the Agreement. City and Developer shall diligently pursue grant funding opportunities to fund the remaining Trail Overcrossing and Trail Connections, less the Developer Obligation. In the event that a grant funding opportunity is not successful, City shall credit Developer using Traffic Impact Fees (TIF) less the Developer Obligation, in accordance with Livermore Municipal Code Section 12.30.080, Credit and Reimbursement, and as set forth below in exchange for Developer constructing the Trail Overcrossing and Trail Connections.

The Developer shall provide, at its own cost, an Engineer's cost estimate for the Trail Overcrossing and Trail Connections, subject to the City Engineer's review and approval.

The Engineer's cost estimate shall include all hard costs (including, without limitation, contractor time, materials), management costs (equaling 5% of the hard costs), City plan check and inspection, third party inspections, ten percent contingency (10%) applied to construction costs only, City building permit fees (if any), all other permitting and regulatory fees/costs, costs (including consultant costs) for environmental and regulatory approval of the Trail Overcrossing and Trail Connections, and construction bonds and insurance. The City's TIF credits shall equal up to a maximum of 10 percent over the Engineer's cost estimate; if the final cost estimate exceeds the Engineer's cost estimate by more than 10 percent, the Developer shall pay the remaining Trail Overcrossing and Trail Connections cost over the Engineer's estimate. For avoidance of doubt, Developer shall have no right of credits or reimbursements for the design costs of the Trail Overcrossing or Trail Connections. City shall credit Developer for the Trail Overcrossing and Trail Connections as follows:

City shall provide Developer a TIF credit of the SMP 40 Project's Traffic Impact Fees (the "Impact Fee Credit") for the identified Engineer's cost estimate for the Trail Overcrossing and Trail Connections (or up to a maximum of 10 percent over this estimate as specified above). The Impact Fee Credit shall be credited against the TIF that are collected at the time each building permit is paid, and on a permit-by-permit basis as Developer's obligations to pay such impact fees accrue until the last SMP 40 Project building permit is issued.

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RECORDING REQUESTED BY AND
WHEN RECORDED MAIL TO:

City Clerk
City of Livermore
1052 South Livermore Avenue
Livermore, CA 94550

(Space Above This Line Reserved for Recorder's Use Only)

PRE-ANNEXATION AND DEVELOPMENT AGREEMENT

BY AND BETWEEN

THE CITY OF LIVERMORE

AND

LIVERMORE INDUSTRIAL PARTNERS 40, LLC; AND SMP-40, LLC

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PRE-ANNEXATION AND DEVELOPMENT AGREEMENT (DA 23-002) [SURFACE MINING PERMIT (SMP) 39/40 PROJECT – SMP 40 PROPERTY]

This Pre-annexation and Development Agreement ("Agreement") is entered into on _____, 2024 between the City of Livermore, a municipal corporation ("City"), Livermore Industrial Partners 40, LLC ("Developer") and SMP-40, LLC ("Seller"). The City, Developer, and Seller are sometimes referred to below each individually as a "Party" and collectively as the "Parties."

RECITALS

This Agreement is based on the following facts:

A. The City has the authority to enter into a development agreement under Government Code section 65864 *et seq.* ("Development Agreement Statutes") and Chapter 9.04 of the Livermore Development Code to vest certain rights to the Developer and to meet certain public purposes of the local government.

B. SMP-39, LLC, an affiliate of Seller, owns approximately +/- 51.9 acres located on Jack London Boulevard, west of Oaks Business Park and south of Livermore Municipal Airport (commonly referred to as "SMP 39"). Seller owns approximately +/- 41 acres (commonly referred to as "SMP 40" or, for purposes of this Agreement, "SMP 40 Property"), which is the subject of this Agreement. The aforementioned SMP numbers reference the Surface Mining Permit (SMP) numbers applicable to each site. The Surface Mining Permits for each of the sites were approved by Alameda County in 2004 to allow for the extraction of sand and gravel (i.e., aggregate) within the sites; however, aggregate mining has not occurred within either of the sites.

C. Four additional parcels that total approximately +/- 12.9 acres are located east of SMP 40 and are included in the overall project area (as set forth in more detail in Recital F and referred to as the "Additional Annexation Only Parcels"). The City has chosen to include the parcels in the proposed annexation area for purposes of efficiency and to create logical boundaries.

D. The SMP 40 Property consists of one parcel Assessor Parcel Number (APN) 904-0010-002-02 and is generally located south of Oaks Business Park, at the south end of Atlantis Street and Challenger Street. It is situated in Alameda County and is within the City of Livermore's Sphere of Influence ("SOI") and the City of Livermore's South Livermore Urban Growth Boundary ("UGB"). The SMP 40 Property is zoned Agricultural by Alameda County with a County General Plan designation of Industrial. The SMP 40 Property has a City of Livermore General Plan designation of Open Space/Sand and Gravel.

The SMP 40 Property is described more specifically in the attached **Exhibit A**. The SMP 40 Property does not include property located within SMP 39 or the Additional Annexation Only

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Parcels, as described in Recitals E and F below. Development of the SMP 40 Property is described in Recitals G and H, below, and set forth in more detail in **Exhibit B** (SMP 40 Development Description) and **Exhibit C** (Site Plan for the SMP 40 Property). Developer is in contract to purchase SMP 40 Property from Seller, and under that contract has the primary rights and obligations regarding application for and funding the Entitlements, described below in Recital I, for the SMP 40 Property as set forth in this Agreement. Developer is required to annex the SMP 40 Property into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

E. SMP-39, LLC, an affiliate of Seller, owns certain real property consisting of one parcel (APN 904-0003-001-04) and is situated in Alameda County, within the City of Pleasanton's SOI and the City of Livermore's South Livermore UGB ("SMP 39"). SMP 39 is zoned Agricultural by Alameda County and has a County General Plan designation of Industrial. SMP 39 has a City of Livermore General Plan designation of Open Space/Sand and Gravel. The Developer is required to change the SOI for SMP 39 from the City of Pleasanton to the City of Livermore and to annex SMP 39 into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

F. Four additional parcels (APNs 904-0010-002-03, -5, -7, and -8) located immediately east of SMP 40 are within unincorporated Alameda County, the City of Livermore SOI, and the City of Livermore South Livermore UGB ("Additional Annexation Only Parcels"). APN 904-0010-002-03 is an approximately 0.20-acre parcel owned by the Pacific Gas and Electric Company (PG&E) and is developed with existing PG&E infrastructure. APN 904-0010-002-05 is an approximately 5.76-acre parcel owned by the Zone 7 Water Agency and serves as a flood control channel. APN 904-0010-002-07 is an approximately 1.57-acre parcel owned by the California Department of Transportation (Caltrans) and is currently undeveloped. APN 904-0010-002-08 is an approximately 5.46-acre parcel owned by the City of Livermore and is currently undeveloped with scattered trees throughout the parcel. The City of Livermore General Plan designates the Additional Annexation Only Parcels as Open Space/Sand and Gravel. The Additional Annexation Only Parcels are also within the East County Area Plan of the Alameda County General Plan, which designates the parcels as Industrial. The parcels are zoned Agriculture by Alameda County. The Developer is required to annex the Additional Annexation Only Parcels into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

G. Due to their interrelated nature, activities involving SMP 39, SMP 40, and the Additional Annexation Only Parcels (together, the "SMP 39/SMP 40 Project") are considered in a single Environmental Impact Report ("EIR") (SCH #2023010091) for purposes of the City's environmental review under the California Environmental Quality Act ("CEQA"). The SMP 39/SMP 40 Project evaluated in the EIR includes a SOI amendment for SMP 39 and a General Plan Amendment, Pre-zoning and Annexation, Zoning Map Amendment/ Planned Development, Vesting Tentative Subdivision Maps, Pre-Annexation Agreements, and Development Agreements for SMP 39 and SMP 40. A Site Plan Design Review entitlement is also included for SMP 40. The SMP 39/SMP 40 Project evaluated in the EIR also includes annexation of the Additional Annexation Only Parcels.

H. SMP 39 and SMP 40 shall be developed with light industrial development uses consistent with the City's *Low-Intensity Industrial* General Plan designation, including research

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and development, professional and administrative offices, experimental and testing laboratories, manufacturing of electronic and other high-end complex products, a limited amount of warehouse and distribution, and similar uses as stated in PD-I 22-001, the zoning for the property (**Exhibit D**). The SMP 39/SMP 40 Project includes (i) on SMP 39, approximately six light industrial buildings consisting of up to 755,500 square feet (sf) of development and, (ii) on SMP 40, two light industrial buildings consisting of up to 759,275 sf of development. **Exhibit C** shows the proposed site plan for the SMP 40 Development. Developer and City intend that separate Pre-annexation and Development Agreements will be entered into for SMP 39 and SMP 40, respectively, in order to segregate the rights and obligations related to each property. This Agreement, as reflected herein, addresses the SMP 40 Property and no other property.

I. The Developer has applied for the following entitlements ("Entitlements") for the SMP 40 Property from the City of Livermore as required under the Livermore Development Code, to be vested in accordance with this Agreement pending annexation of the SMP 40 Property into the City of Livermore:

- General Plan Amendment (GPA 21-001) to change the City of Livermore designation of SMP 39 and SMP 40 from *Open Space/Sand and Gravel* (OSP/S&G) to *Low-Intensity Industrial* (LII) and to change the City of Livermore designation of the Additional Annexation Only Parcels from *Open Space/Sand and Gravel* (OSP/S&G) to *Parks, Trailways, Recreation Areas* (OSP) (the "General Plan Amendment" or "GPA");

- Pre-zoning of SMP 39 and SMP 40 (DCA 21-005, ZMA 21-002 and PD-I 22-001) by (i) amending the City's zoning map to rezone SMP 39 and SMP 40 to the *Planned Development - Industrial* (PD-I) 22-001 zoning district, which includes the "Planned Development-Industrial 22-001 Zoning Standards" described more fully in attached **Exhibit D**; and (ii) pre-zoning the Additional Annexation Only Parcels to *Open Space Flood Plain* (the "Prezoning"). The Prezoning shall become effective with respect to SMP 39, SMP 40, and the Additional Annexation Only Parcels upon their annexation to the City in accordance with California Government Code section 65859;

- SOI Amendment and Annexation (APZ 21-003) authorizing submittal of an application to the Alameda County Local Agency Formation Commission ("LAFCo") to (i) include SMP 39 within the City of Livermore's SOI (and remove SMP 39 from the City of Pleasanton's SOI); and (ii) annex SMP 39, SMP 40, and the Additional Annexation Only Parcels from Alameda County into the City;

- Vesting Tentative Parcel Map 11219 (SUB 21-009) authorizing the creation of two development parcels for the SMP 40 Property, (the "Tentative Map");

- Site Plan Design Review (SPDR 21-008) certifying compliance with the "Applicable Rules" (meaning the rules, regulations, and official policies of the City, including but not limited to the City's General Plan and Livermore

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Development Code, as they existed on the Effective Date, except as otherwise amended by the approved Entitlements or this Agreement) and the Planned Development Standards with respect to the development proposed on the SMP 40 Property (the "SPDR Approval"); and

- This Pre-annexation and Development Agreement (DA 23-002) to vest certain rights to the Developer and to provide specific public benefits that meet certain public purposes of the local government.

In addition to the above listed Entitlements, an EIR (SCH #2023010091) for the SMP 39/SMP 40 Project has been prepared in accordance with CEQA to evaluate potential impacts to the environment of the SMP 39/SMP 40 Project, including the Entitlements.

J. The City Council finds that the SMP 39/SMP 40 Project is in the public interest; will establish land uses compatible with the physical nature of the SMP 40 Property and the surrounding area; will generate light industrial development and activity to meet local and regional goals; and will provide certain substantial public benefits and help attain certain other public objectives including, without limitation: (i) including construction of and a $750,000 financial contribution toward off-site trail improvements, creating connections to the City's existing trail networks as identified in the *Active Transportation Plan* ("ATP"); and (ii) a commitment to the funding of $100,000, payable over a two-year term in increments of $50,000 per year, to facilitate uses that support an innovation-driven economy, generate high wage jobs, or generate substantial sales tax revenues as determined by the Director of Innovation and Economic Development. Items (i) through (ii) above, and as described more fully in Section 4, are collectively referred to as the "Public Benefits").

K. This Agreement will promote and encourage the SMP 40 Development by providing the Developer and its creditors with a greater degree of certainty of the Developer's ability to expeditiously and economically complete the development effort for the SMP 40 Property, and the Parties agree that the consideration to be received by the City pursuant to this Agreement and the rights secured to the Developer hereunder constitute sufficient consideration to support the covenants and agreements of the City and the Developer. By entering into this Agreement, the City desires to allow the Developer to design, apply for, and if approved to develop the SMP 40 Property pursuant to this Agreement, the land use ordinances, rules, regulations, and policies applicable on the "Effective Date," as defined in Section 2, and to vest in Developer, upon annexation, to the fullest extent possible under the law, development entitlements in order to complete the SMP 40 Development, consistent with Section 5(c) of this Agreement.

L. The SMP 40 Development has been extensively reviewed and considered by the City and its officers, agencies, and departments. The proposed uses have been found to accommodate the City's recommendations and suggestions in order to protect the public's interest and to enhance the desirability, from the public's perspective, of the SMP 40 Development.

M. The City conducted duly noticed public hearings on this Agreement pursuant to Government Code section 65867 and Livermore Development Code sections 9.04.040 and

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9.04.050 and found that the provisions of this Agreement and its purposes are consistent with the objectives, policies, general land uses, and programs specified in the City's General Plan and Livermore Development Code.

N. This Agreement was adopted by ordinance of the City Council on _____, 2024 and approved upon a second reading on _____, 2024 after notice and public hearings before the Planning Commission and City Council, and after City Council certification of an EIR in accordance with CEQA, Public Resources Code section 21000 *et seq*.

NOW, THEREFORE, the City and Developer hereby agree that the aforementioned recitals are true and correct and incorporated by reference as fully set forth below, and further agree as follows:

1. The Property. The SMP 40 Property is described in **Exhibit A**, attached hereto. The SMP 40 Development includes two light industrial buildings consisting of up to 759,275 sf of development. A comprehensive description of the SMP 40 Development and a proposed site plan is in attached **Exhibit B** (SMP 40 Development Description) and **Exhibit C** (Site Plan for the SMP 40 Property).

2. Effective Date. The effective date of this Agreement (the "Effective Date") is the later of (a) thirty (30) days after the date the Ordinance approving this Agreement is adopted by the City Council and attested by the City Clerk, or (b) if a referendum petition is timely and duly circulated, filed and qualified by the Elections Official, the date the election results on the ballot measure by City voters approving this Agreement are certified by the City Council in the manner provided by the Elections Code. This Agreement shall be executed by the City within ten (10) days after the Effective Date and recorded as provided in Government Code Section 65868.5.

3. Term. The term of this Agreement is ten (10) years ("Term"), beginning on the date annexation proceedings for SMP 39, SMP 40, and the Additional Annexation Only Parcels are complete ("Annexation Date"). The Agreement may be extended as provided for in the Development Agreement Statutes and the Livermore Development Code, subject to the written consent of the City and Developer. The terms of the Entitlements shall be automatically extended such that the Entitlements remain in effect for any extended Term.

   Following the expiration of the Term, or the earlier completion of development of the SMP 39/SMP 40 Project and all of Developer's obligations in connection therewith, or the failure of SMP 39 or SMP 40 to be annexed into the City of Livermore in accordance with Section 5(g) of this Agreement, this Agreement shall be terminated and of no further force and effect, subject, however to the provisions of Section 10 and Section 16.

4. Developer Obligations; Schedule of Performance. The Developer shall comply with the requirements set forth in the Schedule of Performance and tasks listed below. The Schedule of Performance is subject to revision from time-to-time as mutually agreed upon in writing between the City and the Developer, which shall be accomplished through a separate document and without the need to amend this Agreement. The City

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Manager shall have the authority to approve on behalf of the City any revision to a date in the Schedule of Performance that he or she deems appropriate, provided that the revision extends the performance deadline for a time period no longer than one year. Developer shall comply with the following Schedule of Performance:

a. Developer shall initiate timely applications for the SOI amendment for SMP 39 and the annexation for SMP 39, SMP 40, and the Additional Annexation Only Parcels, which shall be reviewed by the appropriate decision-making bodies for each parcel, which may include the City of Pleasanton, Livermore City Council and LAFCo.

b. Developer shall pay a $100,000 cash contribution to the City of Livermore Office of Innovation and Economic Development Department for marketing SMP 39 for the desired land uses identified in PD-I 22-001.

    i. Prior to issuance of the first building permit for the SMP 40 Property, the Developer shall pay an initial $50,000 cash contribution to the City of Livermore Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001.

    ii. Developer shall pay a second $50,000 contribution to the City of Livermore Office of Innovation and Economic Development Department no later than one (1) year following the receipt of the initial $50,000 contribution, to be used toward further marketing SMP 39 for the desired land uses identified in PD-I 22-001.

c. In addition to the on-site trail required by the Project, as set forth in the Conditions of Approval, Developer shall construct an off-site grade-separated overcrossing (bridge) of Isabel Avenue/State Route 84 north of the existing railroad tracks and Stanley Boulevard as a required public benefit ("the Trail Overcrossing"). Developer shall also construct trail connections from the terminus of the bridge to the existing off-site Arroyo Mocho trail east of Isabel Avenue and from the terminus of the bridge west of Isabel Avenue, north to the existing trail along the Zone 7 property (north of the Arroyo Mocho Channel) ("the Trail Connections"). The Trail Overcrossing shall have a span of approximately 190-210 feet and shall run parallel with the existing railroad tracks. The materials shall consist of a fabricated truss and a weathered steel span bridge with concrete flooring. The Trail Overcrossing shall be supported by two cast-in-place concrete abutments which are supported by cast-in-drilled-hole concrete piles. An approach retaining wall shall be required on the east end. The Trail Overcrossing shall be cambered so it will drain from the middle to each end and then drain to the edges and connect to Caltrans storm drains. A site plan and preliminary design details are provided in **Exhibit E**. Final designs shall be conditioned to meet the requirements of applicable permitting agencies. Permits shall be required from the City of Livermore and Caltrans. In addition, an encroachment permit will be required from Caltrans. The Trail Overcrossing and Trail Connections shall be designed as described above or with similar design features as approved by the Community Development Director. The Trail Overcrossing and Trail Connection design shall

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include lighting, cameras, and/or other safety and security measures as required by the City's Chief of Police and City Engineer.

i. As part of Final Map submittal for the SMP 40 Property, the Developer shall pay for and submit design plans, cost estimates, and project bids to the City for review and approval for the Trail Overcrossing and the Trail Connections. Developer shall work to secure and provide a competitive cost for the bridge, consistent with commercially reasonable costs and construction practices. The Trail Overcrossing and Trail Connection design shall be approved by the City before the Developer can apply for any permits related to the Trail Overcrossing and Trail Connection. Developer may submit the Final Map to the City without the Trail Overcrossing and Trail Connections details if the City Engineer determines, in his or her discretion, that the delay in the preparation of said details was due solely to delay by a public agency other than the City.

ii. The Developer's monetary contribution towards the costs of the Trail Overcrossing and Trail Connections shall equal Seven-Hundred-Fifty-Thousand Dollars ($750,000.00) (the "Developer Obligation"). The $750,000 Developer Obligation is in addition to the design and permitting costs the Developer is responsible as set forth in the Agreement. As part of Final Map approval, Developer shall enter into a Subdivision Improvement Agreement which will reference the Developer Obligation.

iii. Prior to Final Map approval, the Developer shall enter into a Community Facilities District to fund long-term maintenance and replacement of the on-site trail improvements and associated landscaping and retaining walls and the off-site trail improvements located within the Zone 7 trail easement associated landscaping and retaining walls.

iv. Prior to issuance of Certificate of Occupancy for Building 2 on the SMP 40 Property, the Developer shall pay for and obtain all necessary permits and approvals from all applicable government agencies, including but not limited to the City and Caltrans and complete all on- and off-site trail improvements including the Trail Overcrossing and the Trail Connections, subject to acceptance of the public improvements by the Livermore City Council.

v. If Developer fails to complete the Trail Overcrossing and Trail Connections prior to the issuance of the Certificate of Occupancy of Building 2 on the SMP 40 Property, Developer shall provide an irrevocable letter of credit from J.P. Morgan Chase, Wells Fargo Bank, or Bank of America in the amount of the remaining estimated cost of construction of the Trail Overcrossing and the Trail Connections, plus a 25 percent contingency added to the remaining estimated cost. The irrevocable letter of credit shall provide the City with sole and unilateral release of funds and shall be in a form approved by the City Attorney. The remaining estimated cost shall be determined by an updated Engineer's cost estimated provided and approved by the City Engineer prior to the issuance of Certificate of Occupancy for Building 2. Unless the City

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Engineer determines in his or her discretion that a delay by a public agency other than the City was the sole reason for Developer's failure to complete to the Trail Overcrossing or Trail Connection, the Developer Obligation to the Trail Overcrossing and Trail Connections shall increase every six months following issuance of the Certificate of Occupancy of Building 2 on the SMP 40 Property until the Trail Overcrossing and the Trail Connections have been completed, including acceptance of the public improvements by the Livermore City Council as follows: $25,000 every six months during year one, $50,000 every six months during year two, and $75,000 every six months during year three. The Developer shall remain responsible for paying for and obtain all necessary permits and approvals from all applicable government agencies as noted in Section 4(c)v and completing all on- and off-site trail improvements including the Trail Overcrossing and the Trail Connections, subject to acceptance of the public improvements by the Livermore City Council. The obligation to provide an irrevocable letter of credit shall be independent of, and in addition to, the City's standard bond requirements under the Subdivision Improvement Agreement.

vi. In accordance with Chapter 12.30, Traffic Impact Fee on Development Section 12.30.080, Credit and Reimbursement, the Developer shall be eligible for Traffic Impact Fee (TIF) credits to construct the Trail Overcrossing and Trail Connection costs, less the $750,000 Developer Obligation. As described further in attached **Exhibit F**, City shall provide Developer a TIF credit of the SMP 40 Project's Traffic Impact Fees (the "Impact Fee Credit") for the identified Engineer's cost estimate (or up to 10 percent over this estimate as specified above). If the construction cost estimate exceeds 10 percent of the Engineer's cost estimate, the Developer shall pay the remaining Trail Overcrossing and Trail Connections cost over the Engineers estimate. The Impact Fee Credit shall be credited against the TIF that are collected at the time each building permit is paid, and on a permit-by-permit basis as Developer's obligations to pay such impact fees accrue until the last SMP 40 Project building permit is issued. Notwithstanding anything to the contrary in this Agreement, if the Engineer's cost estimate has not been prepared and/or approved prior to when payment of TIF is due, Developer shall pay the applicable TIF when due and City shall provide Developer a cash reimbursement in the dollar amount of TIF Credit within thirty (30) business days after City Engineer's review and approval of the Engineer's cost estimate, such approval not being unreasonably withheld, conditioned, or delayed.

5. Vested Development Rights. Subject to annexation into the City and the terms of this Agreement, the SMP 40 Development shall vest in accordance with this Agreement, and the Developer has the right to develop and use the SMP 40 Property in accordance with:

   a. The City's General Plan and the Livermore Development Code in effect on the Effective Date and the Entitlements in effect on the Annexation Date;

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b. All other City policies, ordinances, resolutions, rules, regulations, and standards applicable to development or use of the SMP 40 Property on the Effective Date, except that Developer shall:

(1) Pay the processing and development impact fees applicable City-wide that are in effect at the time the fees are paid. Payment for said fees shall be made prior to issuance of any building permits.

(2) Comply with Building Code requirements in effect on a City-wide basis at time of Building permit submittal;

(3) Comply with construction and technical design standards or specifications for public improvements that are applicable City-wide at time of Building permit submittal;

(4) Comply with changes in City laws, regulations, plans, or policies applicable City-wide, the terms of which are found by the City Council, based on substantial evidence, to be necessary to protect members of the public from a condition dangerous to public health or safety;

(5) Comply with a change in City law, regulations, plans, or policies that is:

i. Specifically mandated by state or federal law, or by any regional governmental agency that has legal authority over the City under state law or a joint powers agreement; or

ii. A result of or in response to state or federal law, or regional agency action, made necessary in order for the City to avoid losing or not receiving substantial funding or other substantial public benefits or facilities that would be available to the City only if it makes such a change; or

iii. Specifically mandated by, or necessary for compliance with or implementation of, the terms of any permit, entitlement, or other authorization necessary for the development of the Property that is issued or granted to the City, County, and/or Developer by any federal, state or regional agency;

(6) Following any subsequent environmental review, comply with required mitigation measures; and

c. In the event that Developer applies for any subsequent entitlements, subsequent entitlements shall be subject to the City's ordinances, rules, regulations and policies in effect on the date of submittal of the subsequent entitlements.

d. If there is any inconsistency between this Development Agreement and a permit or entitlement issued for the SMP 40 Property, this Development Agreement shall control.

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e. Developer acknowledges that execution of this Agreement by the City does not constitute approval of any required permits, applications, or allocations, and in no way limits the discretion of the City in the permit, allocation, and approval process in accordance with the limitations set forth herein.

f. Upon annexation of SMP 39 and 40, Developer agrees that all mining permits previously granted by Alameda County on the SMP 39 and SMP 40 properties shall be forfeited, and no mining operations shall occur on the SMP 39 Property or the SMP 40 Property. No later than 60 days from the date LAFCo approves annexation of the SMP 40 Property, subject to any extension granted by the City, Developer shall coordinate with Alameda County to complete any final actions required to remove the mining permits and all associated permissions related to mining operations from the SMP 39 and SMP 40 properties.

g. The Parties agree that the obligations set forth in this Agreement are conditioned upon the passing of a City Council Resolution authorizing submittal of an application to LAFCo for SOI and Annexation, the filing of an application with LAFCo to modify the SOI for SMP 39, annex SMP 39, SMP 40 and the Additional Annexation Only Parcels, requesting waiver of notice, hearing and protest from LAFCo, subject to LAFCo approval. Furthermore, the Parties also agree that the obligations set forth in this Agreement are conditioned upon the approved and finalized SOI modification and annexation of the SMP 39 and SMP 40 Properties and the Additional Annexation Only Parcels into the City of Livermore. Upon approval of the SMP 39/SMP 40 Project by the City, the City agrees to act in good faith, in collaboration with the Developer, to support and timely process the annexation application with LAFCo. The Developer shall be responsible for all costs associated with annexation, including but not limited to preparation of the LAFCo application, LAFCo application submittal fees, and any other City-related annexation fees. Annexation of SMP 39, SMP 40, and the Additional Annexation Only Parcels shall be completed no later than 18 months from the Effective Date of this Agreement, unless extended by written agreement of the Parties. If the annexation is not completed within this time period, subject to any agreed upon extension, the Agreement is null and void.

h. Developer shall not dispute or challenge the validity of the Pre-annexation and Development Agreement for SMP 39. Any legal challenge to the validity or enforceability of the Pre-annexation and Development Agreement for SMP 39 shall constitute a legal challenge to the Pre-annexation and Development Agreement for SMP 40 and the SMP 39/SMP 40 Project. In the event of a valid legal challenge, this Agreement shall be terminated after all appeals have been exhausted before a final court of judgment, or issuance of a final court order directed to the City to set aside, withdraw or abrogate the City's approval of this Agreement or the Pre-annexation and Development Agreement for SMP 39.

7. Periodic Review. Review of this Agreement shall be made annually, consistent with Government Code section 65865.1 and Livermore Development Code Chapter 9.04.

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8. Amendments. The Agreement may be amended in writing by the Parties, by mutual agreement, consistent with the procedures set forth in the Development Agreement Statutes and the Livermore Development Code, as they are amended from time-to-time.

9. Force Majeure. The Term of this Agreement shall be extended by, and the performance by any Parties of their obligations hereunder (other than for payment of money) shall be excused during, any period of "Force Majeure" as hereinafter defined. "Force Majeure" means a delay caused by any labor disputes or strikes, labor or material shortages or embargoes, pandemic, fire, unusual delay in transportation, earthquakes, floods, tornadoes or extreme wind or other adverse weather conditions not reasonably foreseeable by Developer, or material adverse underground conditions not reasonably foreseeable by Developer.

10. Remedies for Default. If a Party is in default under this Agreement, another Party may pursue one or more of the following courses of action after providing 30 days' written notice to the purportedly defaulting Party (or such longer period as may be required to cure the default, so long as such Party commences the cure within such 30-day period and diligently pursues the cure to completion): (a) waive the default; (b) in the City's case, pursue administrative remedies, including denial or otherwise withholding issuance of building permits, certificates of occupancy, or other approvals; (c) pursue judicial remedies; or (d) terminate this Agreement. Any purported default by a Party hereunder shall be subject to, and tolled by, any event of Force Majeure that prevents such Party from performing the act necessary to avoid or cure such purported default. Any such tolling shall end at the termination of the event of Force Majeure.

11. Termination. This Agreement shall terminate upon the earlier of (i) expiration of the Term, or (ii) in the event that SMP 39, SMP 40, and the Additional Annexation Only Parcels are not annexed into the City in accordance with Section 5(g) of this Agreement (iii) when the SMP 39/SMP 40 Project has been completed and all of Developer's obligations have been fully satisfied as reasonably determined by the City, or (iv) after all appeals have been exhausted before a final court of judgment, or issuance of a final court order directed to the City to set aside, withdraw or abrogate the City's approval of this Agreement or any material part thereof, or the Pre-annexation and Development Agreement for SMP 39 or any material part thereof. Upon termination of this Agreement as to the SMP 39/SMP 40 Project, at the request of Developer, the City shall record a Notice of Termination for each affected parcel in a form satisfactory to the City Attorney in the Office of the Alameda County Recorder. In the event this Agreement is terminated, neither party shall have any further rights or obligations hereunder except for those obligations of Developer set forth in Section 12 (No Damages Relief) and Section 16 (Legal Action; Attorneys' Fees).

12. Mortgagee Protection.

    a. This Agreement shall not prevent or limit Developer in any manner, at Developer's sole discretion, from encumbering the Property or any portion thereof or any improvement thereon by any mortgage, deed of trust, or other security device securing financing with respect to the Property ("Mortgage"). This

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Agreement shall be superior and senior to any lien placed upon the Property or any portion thereof after the date of recording this Agreement, including the lien of any Mortgage. Notwithstanding the foregoing, no breach hereof shall defeat, render invalid, diminish, or impair the lien of any Mortgage made in good faith and for value, but all of the terms and conditions contained in this Agreement shall be binding upon and effective against and inure to the benefit of any person or entity, including any deed of trust beneficiary or mortgagee ("Mortgagee") who acquires title to the Property, or any portion thereof, by foreclosure, trustee's sale, deed in lieu of foreclosure, or otherwise.

b. *Liability for Past Defaults*. Any Mortgagee, including the successful bidder at a foreclosure sale, who takes title and possession of the Property, or any portion thereof, pursuant to such foreclosure, shall take the Property, or portion thereof, subject to the provisions of this Agreement; provided, however, in no event shall such Mortgagee be liable for any defaults or monetary obligations of Developer arising prior to acquisition of title to the Property by such Mortgagee. Notwithstanding the preceding sentence, in no event shall any such Mortgagee or its successors or assigns be entitled to a building permit, final inspection, or occupancy certificate until all fees and other monetary obligations due under this Agreement have been paid to the City and any other existing defaults under this Agreement that are reasonably subject to cure are cured.

c. *Notice of Default to Mortgagee; Right of Mortgagee to Cure*. If City receives a notice from a Mortgagee requesting a copy of any Notice of Default given to Developer hereunder and specifying the address for service thereof, then City shall deliver to such Mortgagee, concurrently with service thereon to Developer, any notice given to Developer with respect to any claim by City that Developer has committed a default. If the City makes a determination of noncompliance hereunder, City shall likewise serve notice of such noncompliance on such Mortgagee concurrently with service thereof on Developer. Each Mortgagee shall have the right (but not the obligation) during the same period available to Developer to cure or remedy, or to commence to cure or remedy, the event of default claimed or the areas of noncompliance set forth in City's notice.

13. No Damages Relief. The Parties acknowledge that the City would not have entered into this Agreement were it exposed to damages claims from Developer for any breach thereof. As such, the Parties agree that in no event shall Developer be entitled to recover damages against City for breach of this Agreement. To the extent permitted by law, specific enforcement of this Agreement, including specific performance of Developer's payment obligations set forth in Sections 4(b) and 4(c) and the City's TIF credit obligations set forth in Exhibit F, is the proper and desirable remedy.

14. Recordation: Binding Effect. This Agreement shall be recorded in the office of the Alameda County Recorder and shall be binding upon and inure to the benefit of any successors in interest to the Parties. The Parties acknowledge that, as of the date of preparing this Agreement, the Property is owned in fee by Seller and that Seller shall have all rights and obligations of "Developer" under this Agreement.

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15. Release Upon Transfer. Upon the sale, transfer, or assignment, in whole or in part, of Developer's right and interest to all or any portion of the Property, Developer shall be released from its obligations hereunder with respect to the portion so conveyed, provided: (i) Developer (or transferee) was not in default of this Agreement at the time of conveyance, (ii) Developer provided to City prior written notice of such transfer, and (iii) with respect to sale or transfer of any lot that has not been fully improved, the transferee executes and delivers to City a written assumption agreement in which: (a) the name and address of the transferee is set forth, and (b) the transferee expressly assumes the obligations of Developer under this Agreement as to the portion of the Property conveyed. Failure to deliver a written assumption agreement hereunder shall not negate, modify, or otherwise affect the liability of any transferee pursuant to the provisions of this Agreement.

16. Timing of Development.

    a. Because the California Supreme Court held in *Pardee Construction Co. v. City of Camarillo*, 37 Cal.3d 465 (1984), that the failure of the parties therein to provide for the timing of development resulted in a later adopted initiative restricting the timing of development to prevail over the parties' agreement, it is the Parties' intent to avoid that result by acknowledging, that unless provided for in this Agreement, Developer shall have the right (without obligation) to develop the Property in such order and at such rate and at such times as Developer deems appropriate within the exercise of its subjective business judgment, subject to the terms, requirements and conditions of the Entitlements and this Agreement.

    b. Developer will use its best efforts, in accordance with its own business judgment and taking into consideration market conditions and other economic factors influencing Developer's business decision, to commence or to continue development, and to develop the Project in a regular, progressive, and timely manner in accordance with the terms, requirements and conditions of the Entitlements and this Agreement.

17. Legal Action; Attorneys' Fees. If the City chooses to defend any third party claim or suit challenging any action taken by the City with regard to this Agreement or any procedure or aspect of the City's approval of the development of the SMP 40 Development, including the environmental review process, the Developer in its capacity as either Developer or owner of the Property agrees to reimburse the City for the City's reasonable attorneys' fees, expert witness fees, and related costs as the City may incur in connection with its retention of outside counsel, and for any award of court costs or fees against the City. The City has the right to choose and retain such legal counsel as the City deems appropriate. After expenses reach $100,000, and each $100,000 thereafter, the Parties will confer to review the status of the litigation and their options for proceeding or settling, and they will negotiate in good faith about how the expenses will be allocated. The Developer, in its capacity as the Developer or owner of the Property, shall have no obligation to reimburse the City for costs incurred after the date on which the Developer or owner of the Property give the City written notice of their decision to settle a case, even if the City does not agree to the settlement. If legal action is brought by one of the

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Parties to enforce a provision of this Agreement, the prevailing party is entitled to reasonable attorneys' fees, expert witness fees, and court costs.

18. Notices. The address of each party for the purpose of all notices permitted or required by this Agreement is as follows:

To City:	City of Livermore 1052 South Livermore Avenue Livermore, CA 94550 Attention: Community Development Director and Ashley Vera, Senior Planner
With a copy to:	City Attorney City of Livermore 1052 South Livermore Avenue Livermore, CA 94550
To Developer:	Overton Moore Properties 19700 South Vermont Avenue, Suite 101 Torrance, CA 90502 Attention: Timur Tecimer
With a copy to:	Cox, Castle & Nicholson LLP 50 California Street, Suite 3200 San Francisco, CA 94111 Attention: Christian Cebrian
To Seller:	SMP-40, LLC 1459 18th St #317 San Francisco, CA 94107 Attention: Jennifer Jimenez-Cruz
With a copy to:	Allen Matkins Three Embarcadero Center 12th Floor San Francisco, CA 94111 Attention: Marshall Wallace

The written address of each Party set forth above may be changed by written notice given not less than five (5) days prior to the date such change is to be in effect. All notices under this Agreement shall be in writing, shall be properly addressed, and shall be sent by personal delivery, United States mail (registered, certified, or Express Mail, return receipt requested and postage prepaid), or by overnight courier delivery service. All such notices shall be considered delivered: (i) if personally delivered, on the date of delivery; (ii) if sent by United States mail in the manner prescribed above, on the date shown on the return receipt for acceptance or rejection; or (iii) if sent by overnight courier delivery

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service, on the date of delivery or attempted delivery as shown by the written delivery record of such service.

19. Severability; Choice of Law If any term, provision, condition, or covenant of this Agreement, or the application thereof to any Party or circumstances, shall to any extent be held invalid or unenforceable, the remainder of the instrument, or the application of such term, provision, condition, or covenant, or the application of such term, provision, condition, or covenant to persons or circumstances other than those as to whom or which it is held invalid or unenforceable, shall not be affected thereby and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law. This Agreement shall be governed by the laws of the State of California.

20. Covenants Run with the Land. All of the terms, provisions, covenants, conditions, rights, powers, duties and obligations contained in this Agreement shall be binding upon the parties and their respective heirs, successors and assigns acquiring any portion of the Property and shall inure to the benefit of the parties and their respective heirs, successors and assigns.

21. No Third Party Beneficiaries. This Agreement is entered only for the benefit of the Parties executing this Agreement, their successors in interest. This Agreement is not for the benefit of any other individual, entity or person. Nothing herein shall be construed to create any right of any third party to enforce this Agreement or to seek any benefit therefrom.

22. Time Is of the Essence. Time is of the essence for each provision of this Agreement for which time is an element.

23. Certificate of Compliance. Any Party may, at any time, request that the City indicate in writing: (i) whether this Agreement is in full force and effect; (ii) whether this Agreement has been amended or modified, and if so amended, the nature of any such amendments; or (iii) whether to the best of City's knowledge the requesting Party is in default in the performance of any of its obligations under this Agreement, and if in default, the nature of any such default. City shall endeavor in good faith to respond to any such request within thirty (30) days following the receipt thereof. The Parties shall be entitled to one certificate of compliance per year without any fee being assessed by the City. For any additional certificates of compliance requested in a single year, the City may charge the requesting party a reasonable fee related to the actual cost to prepare the certificate.

24. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which constitute one and the same instrument.

[Signatures on following page]

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IN WITNESS WHEREOF, the Parties have signed this Pre-annexation and Development Agreement on the dates indicated below.

DEVELOPER

LIVERMORE INDUSTRIAL PARTNERS 40, LLC

By: DocuSigned by: Timur Tecimer D96DF47935D5472...

Date: 3/4/2024 Title: manager

SELLER

SMP-40, LLC

By: _____

Date: _____ Title: _____

CITY OF LIVERMORE

By: _____

Date: _____ Title: _____

Attest:

_____

City Clerk

Approved to as Form:

_____

Assistant/City Attorney

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Exhibits:

A SMP 40 Property Description

B SMP 40 Development Description

C Site Plan for SMP 40 Property

D Planned Development-Industrial (PD-I) 22-001 Zoning Standards

E Trail Overcrossing and Trail Connections Site Plan and Preliminary Design Details

F Trail Overcrossing and Trail Connections Credits

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EXHIBIT A
LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE UNINCORPORATED AREA, IN THE COUNTY OF ALAMEDA, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

TRACT ONE:

LAND DESCRIPTION OF REAL PROPERTY SITUATE IN THE UNINCORPORATED AREA OF COUNTY OF ALAMEDA, AND STATE OF CALIFORNIA; AND BEING ALL OF THAT 158.73 ACRE PARCEL OF LAND DESCRIBED IN A QUITCLAIM DEED TO PLEASANTON GRAVEL COMPANY RECORDED ON APRIL 16, 2004 AS INSTRUMENT NO. 2004-162090QFFICIAL RECORDS OF ALAMEDA COUNTY, AND BEING A PORTION OF THAT 307.88 ACRE PARCEL OF LAND DESCRIBED IN A QUITCLAIM DEED TO PLEASANTON GRAVEL COMPANY RECORDED ON NOVEMBER 20, 1992 AS INSTRUMENT NO. 1992-379868 OFFICIAL RECORDS OF ALAMEDA COUNTY, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE SAID 307.88 ACRE PARCEL; THENCE ALONG THE WEST LINE OF THE 307.88 ACRE PARCEL FOR THE FOLLOWING TWO (2) COURSES: (1) NORTH 00° 21' 40" EAST - 735.72 FEET, AND (2) NORTH 37° 51'31" WEST - 48.48 FEET TO A POINT ON THE EAST LINE OF LINE OF PLOT 7, SAID PLOT IS DESCRIBED IN THE DECREE RENDERED BY THE THIRD JUDICIAL COURT OF ALAMEDA COUNTY, CASE NO. 1723, RECORDED APRIL 12, 1869, IN BOOK 40 OF DEEDS, AT PAGE 315 OFFICIAL RECORDS OF ALAMEDA COUNTY; THENCE ALONG SAID EAST LINER NORTH 00° 21' 40" EAST - 2104.93 FEET TO A POINT ON THE SOUTHERLY LINE OF THE SANTA RITA RANCHO AND THE SAID 158.73 PARCEL; THENCE ALONG SAID SOUTH LINE, SOUTH 66° 54' 34" WEST - 1065.68 FEET TO THE SOUTHWEST CORNER OF THE 1 58.73 PARCEL; THENCE ALONG THE WEST LINE OF THE 1 58.73 PARCEL. NORTH 00° 28' 57" EAST - 2485.47 FEET TO THE NORTHWEST CORNER OF THE 158.73 PARCEL; THENCE ALONG THE NORTH LINE OF THE 158.73 PARCEL, NORTH 89° 39' 52" EAST - 4496.04 FEET TO THE NORTHEAST CORNER OF THE 158.73 PARCEL; THENCE ALONG THE EAST LINES OF THE 158.73 PARCEL AND THE 307.88 ACRE PARCEL FOR THE FOLLOWING TWO (2) COURSES: (1) SOUTH 00° 16' 36" WEST - 592.26 FEET, AND (2) SOUTH 00° 09' 36" WEST - 3901.54 FEET TO THE SOUTHEAST CORNER OF THE 307.88 ACRE PARCEL; THENCE ALONG THE SOUTH LINE OF THE 307.88 ACRE PARCEL, SOUTH 82° 14' 00" WEST - 3543.49 FEET TO THE POINT OF BEGINNING.

PURSUANT TO CERTIFICATE OF COMPLIANCE AND BOUNDARY ADJUSTMENT RECORDED OCTOBER 30, 2014 AS INSTRUMENT NO. 2014262802, OF OFFICIAL RECORDS.

APN: 904-0009-001-00, 904-0003-001-05 AND 946-1350-006-02

TRACT TWO:

PARCEL A:

A PORTION OF PLOT 10 OF THE BERNAL PORTION OF RANCHO EL VALLE DE SAN JOSE, AS SHOWN ON THE MAP ACCOMPANYING THE REPORT OF THE REFEREE IN THE ACTION FOR PARTITION OF SAID RANCHO THIRD DISTRICT COURT OF ALAMEDA COUNTY, CASE NO. 1723, LYING NORTHERLY OF THE RIGHT OF WAY OF THE WESTERN PACIFIC RAILROAD, DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE LINE DIVIDING PLOTS 10 AND 20 OF THE BERNAL PORTION OF RANCHO EL VALLE DE SAN JOSE, WITH THE NORTHERN LINE OF THE RIGHT OF WAY OF THE WESTERN PACIFIC RAILROAD; THENCE SOUTH 82° 02' WEST ALONG SAID NORTHERN LINE OF SAID RIGHT OF WAY 2636.70 FEET (39.95 CHAINS); THENCE NORTH 0° 01' WEST 1578.06 FEET (23.91 CHAINS) TO THE LINE DIVIDING PLOTS 10 AND 11 OF SAID RANCHO; THENCE NORTH 89° 38' EAST ALONG SAID DIVIDING LINE 2612.28 FEET (39.58 CHAINS) TO THE WESTERN LINE OF PLOT 20 OF SAID RANCHO; AND THENCE SOUTH 0° 06' EAST ALONG THE LINE DIVIDING SAID PLOTS 10 AND 20, A DISTANCE OF 1230.24 FEET (18.64) CHAINS TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM THAT PORTION OF THE ABOVE DESCRIBED PROPERTY LYING WITHIN THE

EXHIBIT A
(Continued)

LINES OF A 30 FOOT STRIP ALONG THE WESTERN LINE OF SAID PLOT 10 AS DESCRIBED IN THE DEED TO MAAS LUDERS, RECORDED JANUARY 4, 1888, BOOK 339, DEEDS, PAGE 338, ALAMEDA COUNTY RECORDS. SAID EXCEPTION ALSO DESCRIBED AS PARCEL B, PARCEL MAP 5605, FILED SEPTEMBER 21, 1989, BOOK 187, PAGE 29 OF MAPS, ALAMEDA COUNTY RECORDS.

ALSO EXCEPTING THEREFROM ALL THAT PORTION DESCRIBED AS PARCEL 1 (5015-1) IN THAT CERTAIN "FINAL ORDER IN EMINENT DOMAIN" IN FAVOR OF THE CITY OF LIVERMORE, A CERTIFIED COPY OF WHICH WAS RECORDED AUGUST 7, 2001, AS INSTRUMENT NO. 2001287044, OF OFFICIAL RECORDS.

THE ABOVE REFERENCED LEGAL DESCRIPTION WAS CONFIRMED BY THAT CERTAIN DOCUMENT ENTITLED "CERTIFICATE OF COMPLIANCE – PLN2018-00162" RECORDED OCTOBER 10, 2018, INSTRUMENT NO. 2018196923, OF OFFICIAL RECORDS.

APN: 904-0010-002-02

PARCEL B:

REAL PROPERTY IN THE CITY OF LIVERMORE, COUNTY OF ALAMEDA, STATE OF CALIFORNIA, BEING A PORTION OF PARCEL A OF PARCEL MAP 3750 FILED FEBRUARY 10, 1982, IN BOOK 131 OF PARCEL MAPS, PAGES 86-87, SERIES NO. 82-020636, RECORDS OF ALAMEDA COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF PLOT 8 COMMON WITH THE SOUTHWEST CORNER OF PLOT 11 AND THE NORTHWEST CORNER OF PLOT 10 OF THE BERNAL PORTION OF THE RANCHO EL VALLE DE SAN JOSE, AS SAID POINT IS SHOWN ON AFORESAID PARCEL MAP 3750 (82-020636); THENCE ALONG THE SOUTH LINE OF PLOT 11 SOUTH 89° 25' 04" EAST, 30.00 FEET; THENCE LEAVING SAID SOUTH LINE OF PLOT 11 SOUTH 0° 56' 07" WEST, 1577.369 FEET TO A POINT ON THE NORTHERLY LINE OF THE WESTERN PACIFIC RAILROAD RIGHT OF WAY; THENCE ALONG SAID WESTERN PACIFIC RAILROAD RIGHT OF WAY SOUTH 83° 01' 37" WEST, 30.288 FEET TO A POINT ON THE EAST LINE OF AFORESAID PLOT 8 OF THE BERNAL PORTION OF THE RANCHO EL VALLE DE SAN JOSE; THENCE ALONG SAID EAST LINE OF PLOT 8 NORTH 0° 56' 07" EAST, 1581.351 FEET TO THE POINT OF BEGINNING.

BEING PARCEL B OF PARCEL MAP 5605, FILED SEPTEMBER 21,1989, MAP BOOK 187, PAGES 29 AND 30, ALAMEDA COUNTY RECORDS.

APN: 904-0010-007-00

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SMP 40 Development Description

Assessor Parcel Number 904-10-2-2 is also known as SMP 40 ("SMP 40 Property"). The aforementioned SMP number references the Surface Mining Permit (SMP) numbers applicable to the site. The Surface Mining Permit for the SMP 40 Property was approved by Alameda County in 2004 to allow for the extraction of sand and gravel (i.e., aggregate) within the site; however, aggregate mining has not occurred within the SMP 40 Property. The SMP 40 Property is approximately 41 acres and is located within unincorporated Alameda County, the City of Livermore Sphere of Influence (SOI), and the City of Livermore South Livermore Urban Growth Boundary (UGB). The Property is zoned Agricultural by Alameda County with a County General Plan designation of Industrial. The SMP 40 Property has a City of Livermore General Plan designation of Open Space/Sand and Gravel.

Surrounding existing uses include the Oaks Business Park to the north; single-family residences to the east, across Isabel Avenue/SR 84; the Arroyo Mocho, open fields, railroad tracks, and gravel quarries associated with mining operations to the south, across Stanley Boulevard; and vacant land, gravel quarries, and industrial ponds associated with mining operations to the west.

Developer shall construct two light industrial buildings on the SMP 40 Property totaling up to 759,275 square feet (sf) of new building area and associated internal roadways, parking, landscaping, utilities, on- and off-site trail improvements, and other improvements ("SMP 40 Development"). The approximately 470,530-sf Building 1 shall be located on the western portion of the SMP 40 Property and include a total of 68 loading dock doors along the western and eastern sides of the building (34 on each side). The approximately 288,750-sf Building 2 would be located on the eastern portion of the SMP 40 Property and include a total of 62 loading dock doors along the northern and southern sides of the building (34 on the north and 28 on the south). A total of 742 vehicle parking stalls and 90 trailer parking stalls shall be provided at the SMP 40 Property. Each building shall have a maximum height of 50 feet or 55 feet with a Conditional Use Permit.

The SMP 40 Development shall comply with the development requirements including land use, building and landscape setbacks, height, lot coverage, parking, and other required standards as set forth in the Planned Development - Industrial 22-001 (PD-I 22-001) zone. Access to the SMP 40 Property shall be provided through new internal roadway connections to Atlantis Street and Challenger Street to the north, which currently serve the existing Oaks Business Park. The new roadway connections shall be located between Buildings 1 and 2 and shall provide access to the internal drive aisles around each building.

The SMP 40 Development includes a paved at-grade, on-site trail along the boundaries of the SMP 40 Property, consistent with the City's Active Transportation Plan. Specifically, the on-site trail shall extend from the northeastern corner of the site, along the SMP 40 Property's eastern, southern, and western boundaries, before connecting to the existing off-site trail at the northwestern corner of SMP 40 Property, which extends along the west side of the Oaks Business Park to the north and connects to West Jack London Boulevard. The portion of the on-

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site trail located along the SMP 40 Property's eastern and southern boundaries shall be located within a Zone 7 easement north of the Arroyo Mocho.

In addition to the on-site trail required on the SMP 40 Property, an off-site grade-separated overcrossing (bridge) of Isabel Avenue/State Route 84 north of the existing railroad tracks and Stanley Boulevard is a required public benefit ("the Trail Overcrossing"). The SMP 40 Development includes construction of trail connections from the terminus of the bridge to the existing off-site Arroyo Mocho trail east of Isabel Avenue and to the future on-site trail along the SMP 40 Property frontage to the west of Isabel Avenue ("the Trail Connections"). The Trail Overcrossing shall have a span of approximately 190-210 feet and shall run parallel with the existing railroad tracks. The materials shall consist of a fabricated truss and a weathered steel span bridge with concrete flooring. The Trail Overcrossing shall be supported by two cast-in-place concrete abutments which are supported by cast-in-drilled-hole concrete piles. An approach retaining wall shall be required on the east end. The Trail Overcrossing shall be cambered so it will drain from the middle to each end and then will drain to the edges and connect to Caltrans storm drains. A site plan and preliminary design details are provided in **Exhibit E**. Final designs shall be conditioned to meet the requirements of applicable permitting agencies. Permits shall be required from the City of Livermore and Caltrans. In addition, an encroachment permit will be required from Caltrans. The Trail Overcrossing and Trail Connections shall be designed as described above or with similar design features as approved by the Community Development Director. The Trail Overcrossing and Trail Connection design shall include lighting, cameras, and/or other safety and security measures as required by the City's Chief of Police and City Engineer.

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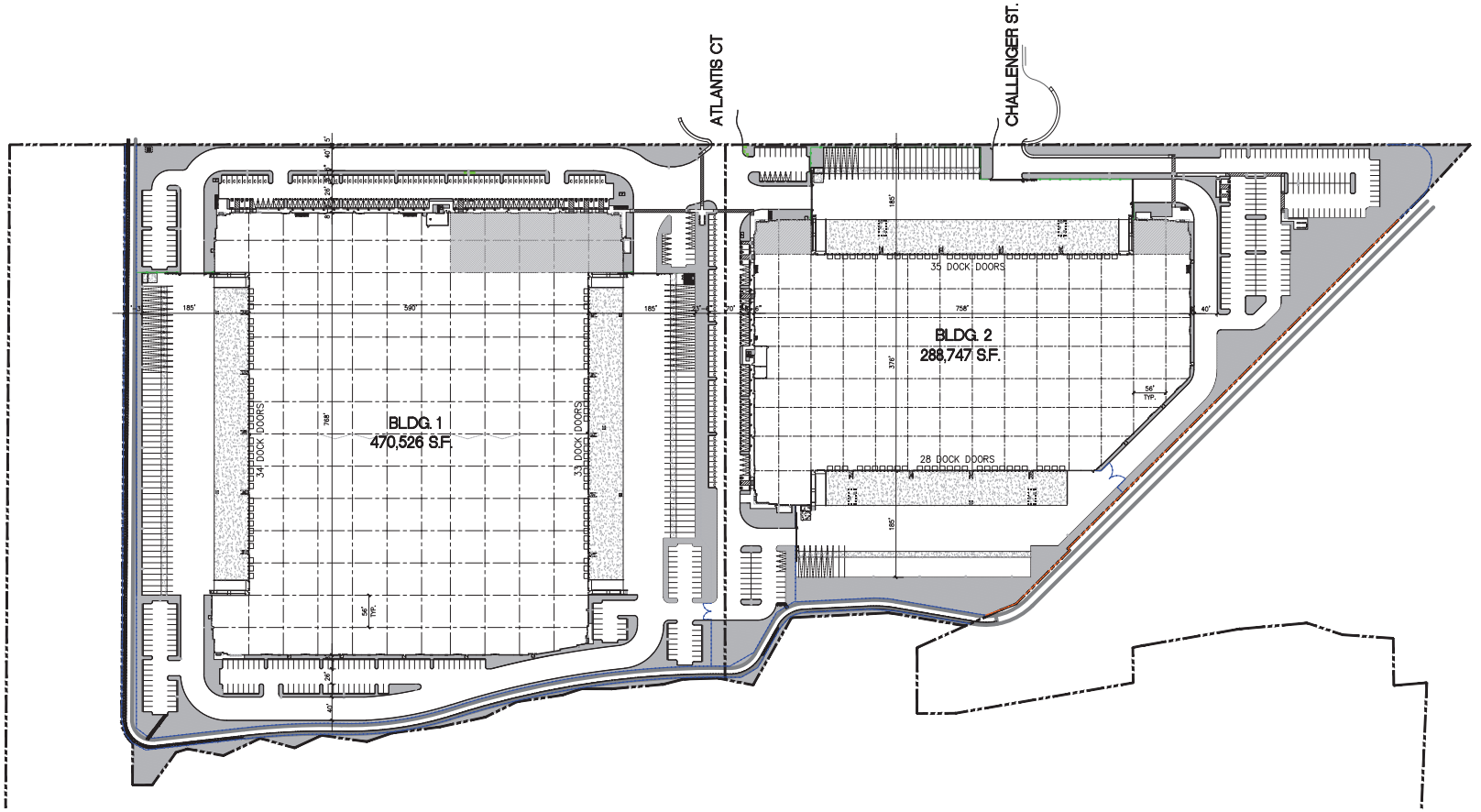


MASTER SITE PLAN
scale: 1" = 80'-0"

SCALE: 1" = 80'-0"
0 80' 160' 240'
PLAN NORTH

NEW METAL FENCE AND GATE

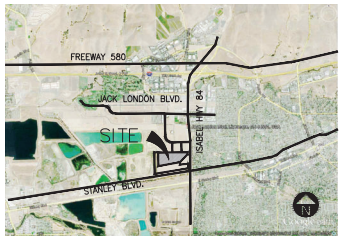
EXISTING CHAIN LINK FENCE

NEW CHAIN LINK FENCE AND GATE

SITE PLAN GENERAL NOTES

- CONCRETE PAVING, SEE "C" DRWGS. FOR THICKNESS
- COMPACT PARKING STALL 9' X 16' (14' WITH 2' OVERHANG)
- STANDARD PARKING STALL 9' X 18' (16' WITH 2' OVERHANG)
- ACCESSIBLE PARKING STALL (9' X 18') ACCESSIBLE AISLE SEE DETAIL 11/AD.1
- STANDARD PARKING STALL W/ EVCS INSTALLED
- STANDARD PARKING STALL W/ CONDUITS ONLY
- ACCESSIBLE PARKING (VAN) STALL (9' X 18') + 8' W/ ACCESSIBLE AISLE
- TRAILER PARKING (10' X 53')
- TRAILER PARKING W/ CONDUITS ONLY
- PATH OF TRAVEL, MINIMUM WIDTH TO BE 4', SLOPE NOT TO EXCEED 5% IN THE DIRECTION OF TRAVEL AND CROSS SLOPE NOT TO EXCEED 2%, SEE CIVIL FOR GRADING PLAN
- LANDSCAPED AREA
- NON-ACCESSIBLE PATH

VICINITY MAP



PROJECT DATA

	BLDG. 1	BLDG. 2	TOTAL
SITE AREA	1,047,191	737,934	1,784,745 s.f.
	24.04	16.93	40.97 ac
BUILDING AREA			
Office	30,000	13,000	43,000 s.f.
Warehouse	440,526	275,747	716,273 s.f.
TOTAL	470,526	288,747	759,273 s.f.
COVERAGE(45% Max.)	44.9%	39.1%	42.5%
AUTO PARKING REQUIRED			
Office: 1/300 s.f.	100	44	144 stalls
Whse: 1/1,200 s.f.	368	230	598 stalls
TOTAL	468	274	742 stalls
EV REQUIRED			
EV Capable + EVCS (20% of total)	94	56	150 stalls
- EV Capable w / conduits only(12% of total)	[47]	[28]	stalls
- EVCS (10% of total)	[47]	[28]	stalls
~ Standard EVCS	44	25	
~ ADA: EV Parking w / EVCS (9' x 20' + 5' Aisle)	1	1	
~ ADA: EV Van Parking w / EVCS (12' x 20' + 5' Aisle)	1	1	
~ Ambulatory	1	1	
AUTO PARKING PROVIDED			
Standard (9'x 18')	186	187	373 stalls
Compact (8'x 16') 30% of total max	112	0	112 stalls
Accessible parking (9' x 18')	5	5	10 stalls
Accessible Van (9' x 18' +8' aisle)	4	3	7 stalls
EV Capable + EVCS (20% of total)	94	56	150 stalls
- EV Capable w / conduits only(10% of total)	[47]	[28]	stalls
~ Standard EV Capable	17	16	
~ Trailer w / conduits	30	12	
- EVCS (10% of total		[47]	[28] stalls
~ Standard EVCS	44	25	
~ ADA: EV Parking w / EVCS (9' x 20' + 5' Aisle)	1	1	
~ ADA: EV Van Parking w / EVCS (12' x 20' + 5' Aisle)	1	1	
~ Ambulatory	1	1	
Standard Trailer (10' x 53')	67	23	90 stalls
TOTAL	468	274	742 stalls
BIKE RACKS REQUIRED/PROVIDED			
Long-term (5%)	24	14	38
Short-term (5%)	24	14	38
ZONING ORDINANCE FOR CITY			
Proposed Zoning Designation - Industrial (IC)			
SETBACKS			
Building			
Isabel Rd / 84 - 45' (increased to allow 40' max. ht.)			
New Interior St. - 30' (increased to allow 40' max. ht.)			
Rear/Side - None			
Landscape			
All required Yards shall be landscaped. If Parking lot is provided betw een building and street reduce LS at street by up to 10' and place removed LS at building adjacent to parking.			
MAXIMUM BUILDING HEIGHT ALLOWED			
40'			
MAXIMUM BUILDING HEIGHT REQUESTED			
50' (see 1-DAB-A3.1 & 2-DAB-A3.1 for proposed building height)			

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

REGISTERED ARCHITECT
JOHN D. PAPA
C-29457
3-31-25
RENEWAL DATE
STATE OF CALIFORNIA

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK BUILDING 1

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	4STEL
MECHANICAL	ACIES
PLUMBING	ACIES
ELECTRICAL	ACIES
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: MASTER SITE PLAN

Project Number: 19177
Drawn by: DZ
Date: 11/21/2023
Revision:

Sheet:
A1.0

DocuSign Envelope ID: FA4B4EDF-EA7E-412C-BB1A-6D66AD13828C

PLANNED DEVELOPMENT
STANDARDS
SMP 39 & SMP 40

Planned Development – Industrial (PD-I) 22-001

Reviewed by Planning Commission: March 5, 2024
Approved by City Council: March 25, 2024

Purpose: The purpose of establishing this Planned Development-Industrial (PD-I 22-001) District (District) is to regulate the development of ± 51.9 acres of land located on Jack London Boulevard, west of Oaks Business Park and south of Livermore Municipal Airport (commonly referred to as "SMP 39") and ± 41 acres of land located south of Oaks Business Park, at the south end of Atlantis Street and Challenger Street (commonly referred to as "SMP 40"), as shown in the attached figure (Figure 1). The intent of this District is to accomplish the following:

1. PD-I 22-001 is intended to provide an environment exclusively for and conducive to the development and protection of modern professional and administrative facilities, research institutions, manufacturing operations, experimental and testing laboratory and related uses, any similar employment generating high-end industrial users, all of a non-nuisance type.
2. The District is intended to provide for an aesthetically attractive working environment with park- and/or campus-like grounds, attractive buildings, employee parking, and other amenities appropriate to a mix of office and industrial uses.
3. The District is intended to establish development standards and regulations consistent with the intent of the Low Intensity Industrial General Plan designation.
4. Any land use that utilizes hazardous materials shall be subject to the regulations of Section 6.02.040, Hazardous Materials, of the Livermore Development Code, as it exists now or is amended in the future.
5. Development shall be in conformance with the requirements of the Livermore Development Code as it exists now or is amended in the future, except as modified by the following regulations.
6. Development is subject to the Citywide Design Standards and Guidelines as they exist now or may be amended in the future unless otherwise modified by the following regulations.

A. Principal Permitted Uses:

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The following are the principal permitted uses for SMP 39[1] and SMP 40:

1. Research and development facilities
2. Professional and administrative offices
3. Experimental and testing laboratories
4. Manufacture of electric and electronic circuits, instruments, and devices
5. Manufacture of pharmaceutical products or life science facility, not exceeding Biosafety Level 2[2]
6. Medical diagnostic and manufacturing facilities
7. Manufacturing and assembly of motor vehicle parts, including but not limited to dashboards, parts, component systems, electrical connectors, sensors, panels, airbags, seats, tires, windows etc. for all vehicles and similar equipment (e.g. automobiles, motorcycle, construction equipment, farm equipment, buses).
8. Similar uses as determined by the Community Development Director to be of the same general character as the listed uses.

Additional Permitted Uses for SMP 39 only:

1. Restaurants, except fast food

Additional Permitted Uses for SMP 40 only:

1. Warehousing and distribution facilities, dry or refrigerated
2. Warehousing and distribution facility – E-commerce/Third Party Logistics (3PL)
3. Manufacturing, assembly, processing, storage, or packaging of products from previously prepared materials such as, but not limited to, cloth, plastic, paper, leather, and precious or semi-precious metals or stones, <u>but not including the following</u>:
   A. Operations such as saw and planing mills, any manufacturing uses involving primary production of wood, metal, or chemical products from raw materials, and similar uses
   B. Vehicle dismantling yards, scrap and waste yards
   C. Manufacturing, processing, storing, or packaging chemicals, petroleum, heavy agricultural products or other hazardous materials.

[1] SMP 39 and SMP 40 are located with the Airport Influence Area and the Livermore Airport Protection Area. Per the Alameda County Airport Land Use Compatibility Plan, the majority of SMP 39 is located in Safety Zone 6, with a portion of the site located in Safey Zone 3. The principal permitted land uses are intended to be located in buildings that are only within the portion of SMP 39 that is located in Safety Zone 6.

[2] Per the Centers for Disease Control and Prevention, Biosafety Level 2 laboratories involve work that poses moderate hazards to laboratory workers and the environment. Biosafety Level 2 laboratories require safety protocols to contain microbes and biological agents.

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4. Sale of heavy equipment and construction related vehicles and equipment, including associated repair, service, and parts distribution facilities. Showrooms related to this use may be a conditionally permitted ancillary use.
5. Similar uses as determined by the Community Development Director to be of the same general character as the listed uses.

B. Conditional Uses for SMP 39 and 40:

1. Public and quasi-public uses.
2. Manufacture of pharmaceutical products or life science facility, not exceeding Biosafety Level 3[3]
3. Similar uses as determined by the Planning Commission to be of the same general character as the listed uses.

Conditional Uses for SMP 39 only:

1. Fast-food businesses, banks, personal services, or goods required for the convenience and support of occupants of uses in the surrounding district(s).
2. Warehouse and distribution facilities, including E-commerce/Third Party Logistics (3PL) uses, with the condition that these uses may only occupy up to 20 percent of the total buildable site area.
3. Sale of heavy equipment and construction related vehicles and equipment, including associated repair, service, and parts distribution facilities, provided they are manufactured and/or sold on-site. Showrooms related to this use may be a conditionally permitted ancillary use.
4. Similar uses as determined by the Planning Commission to be of the same general character as the listed uses.

C. Accessory Uses Permitted on SMP 39 and 40:

1. Signs subject to the requirements established by the Livermore Development Code, as well as the Citywide Design Standards and Guidelines, as it exists now or is amended in the future.
2. Accessory uses and buildings customarily appurtenant to a permitted use.
3. Living quarters determined by the Community Development Director to be necessary for surveillance purposes.
4. Fuel stations subject to the requirements of Section 6.03.160, Vehicle Services, of the Livermore Development Code, as it exists now or is amended in the future.

[3] Per the Centers for Disease Control and Prevention, laboratories designated Biosafety Level 3 involve work that poses a safety hazard greater than Biosafety Level 2 laboratories, defined above. Biosafety Level 3 laboratories require additional safety protocols beyond those required for Biosafety Level 2 laboratories to contain microbes and biological agents.

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D. Special Development Requirements for SMP 39 and 40:

1. Uses shall be designed and integrated into the site in a manner that maintains and is complementary to the corporate and professional character of the nearby Oaks Business Park.
2. Outdoor service and storage yards shall be screened from public view consistent with Livermore Development Code Section 6.03.100, Outdoor Storage, as it exists today or is amended in the future.
3. For SMP 40 only: Commercial/Industrial buildings shall be located a distance of at least 500 feet from Isabel Avenue.

E. Site Development Regulations for SMP 39 and 40:

The following minimum requirements shall be observed, except where increased for conditional uses:

1. Lot Area: Twenty thousand square feet
2. Lot Width: One hundred feet
3. Setbacks: Setback requirements are established below. Buildings shall not be permitted within required setbacks.

A. SMP 39

1) Front or Street Side: 40-feet on West Jack London Boulevard, and 30-feet on frontage roads and interior streets, except as required by subsection E.4. All required setbacks adjacent to streets shall be landscaped, except for driveways, sidewalks, and trails that are found to be necessary for the efficient use of the property. Where a building front is visible from the street, a minimum five-foot wide landscaped strip abutting the foundation shall be included, allowing for necessary entrances.
2) Rear and Side: None.

B. SMP 40

1) Front or Street Side: 500-feet from Isabel Avenue, and 30-feet on frontage roads and interior streets, except as required by subsection E.4. All required setbacks adjacent to streets shall be landscaped, except for driveways and sidewalks that are found to be necessary for the efficient use of the property. Where a building front is visible from the street, a minimum five-foot wide landscaped strip abutting the foundation shall be included, allowing for necessary entrances
2) Rear and Side: None, except for a 20-foot setback from the top of the Arroyo Mocho bank on SMP 40 which should be determined from a 2.5:1 slope projection from the toe of

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channel/mining pit to the top, as required in the Environmental Impact Report for the project.

4. Height Regulations: The height of all on-site structures, including roof-top mechanical equipment, is limited to 50 feet or the height permitted by the Federal Aviation Administration (FAA) review under FAA regulations – Part 77, whichever is more restrictive. Upon providing a minimum 40-foot setback from street rights-of-way, a Conditional Use Permit may be requested to increase height to a maximum of 55 feet, or the height permitted under FAA regulations – Part 77, whichever is more restrictive. The height of pole-and building-mounted lights may be approved up to 28 feet by an administrative site plan and design review, if found necessary for the health and safety of a site designed for truck or other large vehicle maneuvering and documented by a light study to not cause glare off-site.
5. Lot Coverage: The building coverage maximum shall be 45 percent.

F. Signs

1. Industrial Uses. Signs for industrial uses shall be subject to the sign regulations contained in Livermore Development Code section 4.06.230 (sign standards for I-1, I-2 and I-3) and the Citywide Design Standards Guidelines as it exists now or is amended in the future.
2. Commercial Uses. Signs for commercial uses shall be subject to the sign regulations contained in Livermore Development Code section 4.06.170 (sign standards for CNB) and the Citywide Design Standards Guidelines as it exists now or is amended in the future.

G. Other Required Standards for SMP 39 and 40:

1. Noise. No use shall be permitted which creates an ambient noise level greater than 75 decibels (dBA) beyond the boundaries of the site, nor greater than 60 decibels at the boundary of a Residential District.
   A. On SMP 39, semi-truck access to the site (arrivals and departures) shall be limited to 96 trips between the hours of 10:00 PM and 7:00 AM.
   B. On SMP 40, semi-truck access to the site (arrivals and departures) shall be limited to 40 trips between the hours of 10:00 PM and 7:00 AM
   C. Between the hours of 10:00 PM and 7:00 AM single-event noise levels (e.g., backup alarm, truck brakes, etc.) shall not exceed 55 dBA, measured at the property line of the nearest residential use.
2. Air Pollution. All uses shall comply with regulations of the San Francisco Bay Area Air Pollution Control District.
3. Vibration, Heat, Glare, Electrical Disturbance. No use shall be permitted which creates noise, odors, vibrations, heat, glare, or electrical disturbances beyond the

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boundaries of the site. Lighting used to illuminate buildings, structures, uses, or parking and loading areas shall not be directed toward any public right-of-way.

4. Fire, Explosion. All uses shall provide adequate safety devices and adequate firefighting and fire suppression equipment to protect against fire, explosion, and other hazards.
5. Solid and Liquid Wastes. No solid or liquid waste discharges, other than permitted discharges into a public sewage disposal system, shall be permitted. The chemical composition and volume of industrial effluent discharged shall be subject to the wastewater permit requirements established by LMC Title 13, Division II. (Ord. 442 § 14.80).

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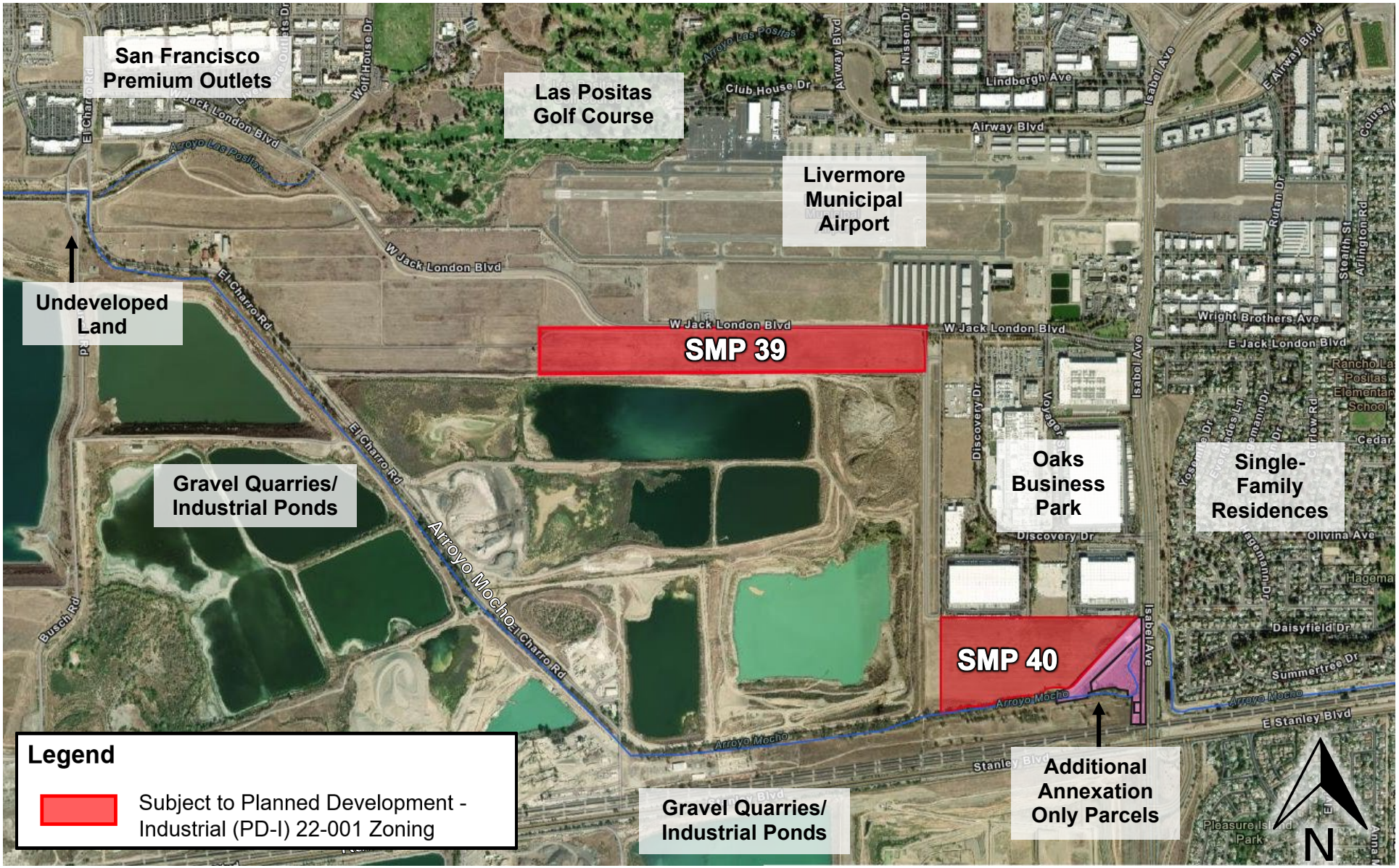
Figure 1



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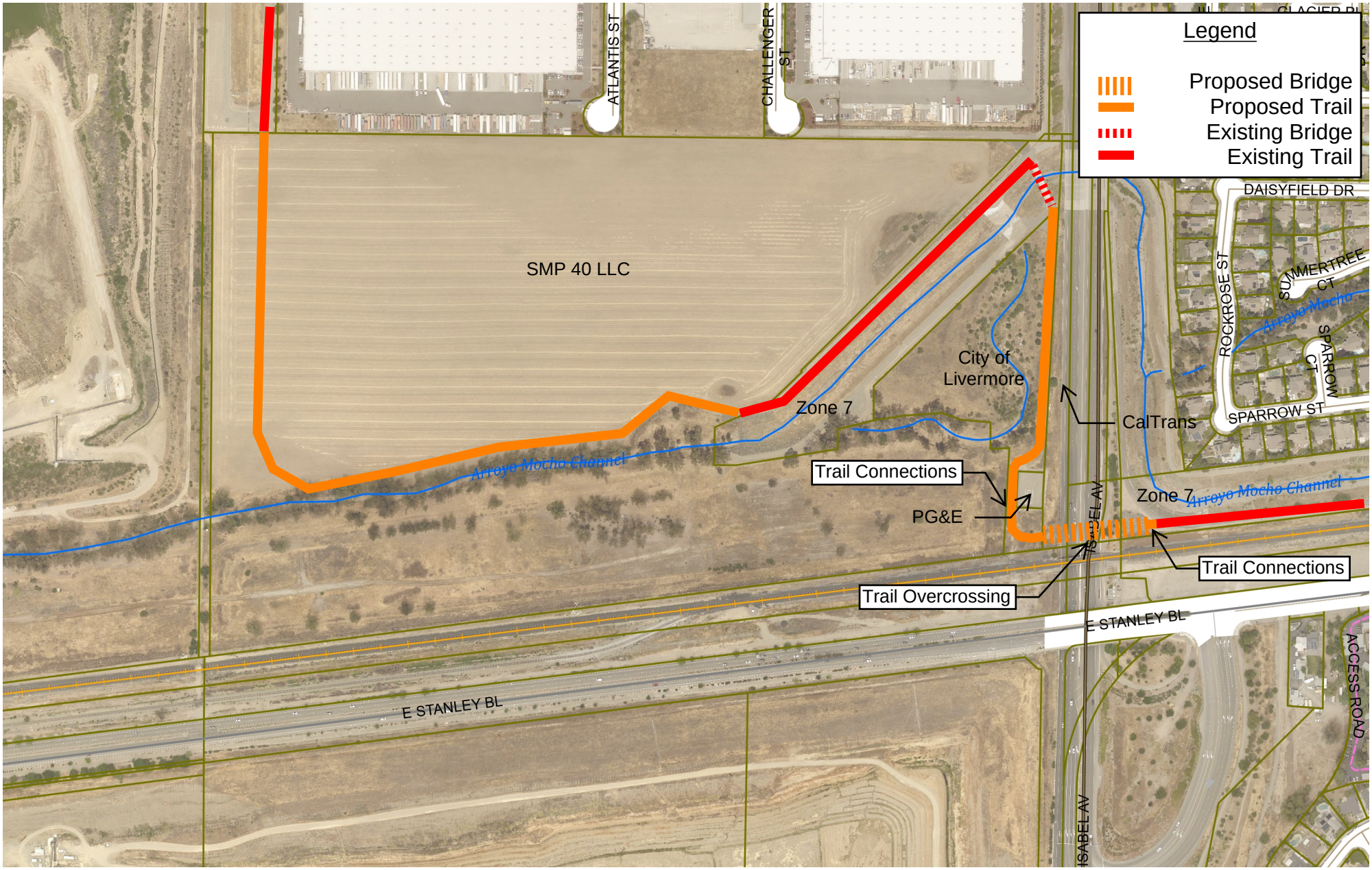
LIVERMORE CALIFORNIA

Preliminary Arroyo Bike Trail Connection - Bridge Over Isabel Avenue

ATTACHMENT 3



800.0 0 400.00 800.0 Feet

NAD_1983_2011_StatePlane_California_III_FIPS_0403_Ft_US
Livermore IT, GIS Services

1: 4,800

This map is based on City of Livermore GIS Information and reflects the most current information at the time of this printing. The map is intended for reference purposes only and the City and its staff is not responsible for errors or omissions.

Notes

1/12/2024

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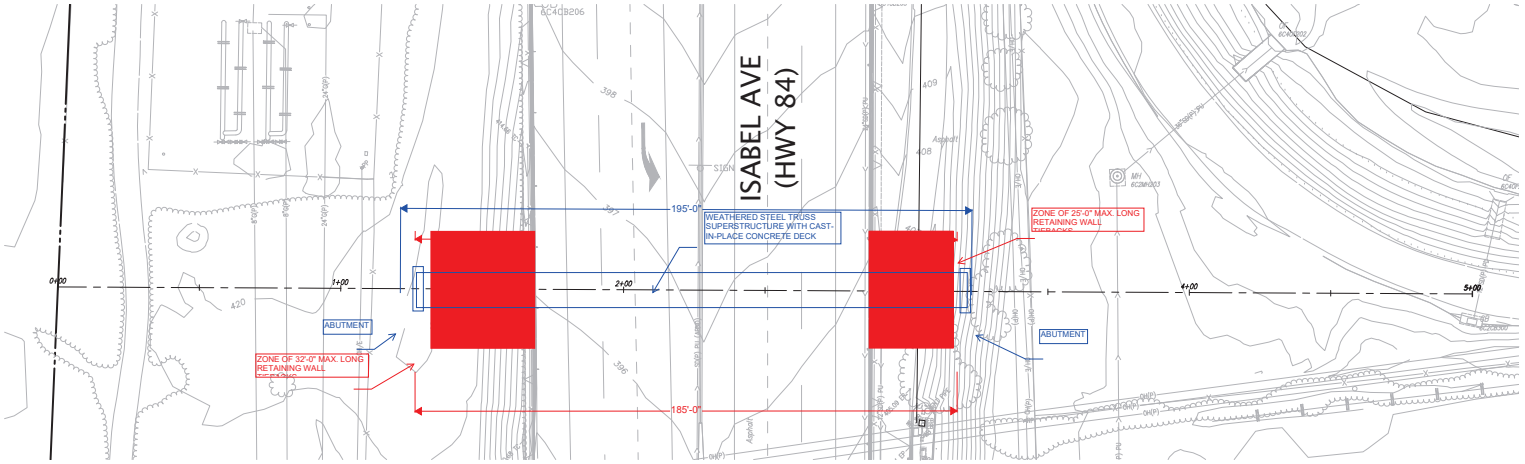
ATTACHMENT 3



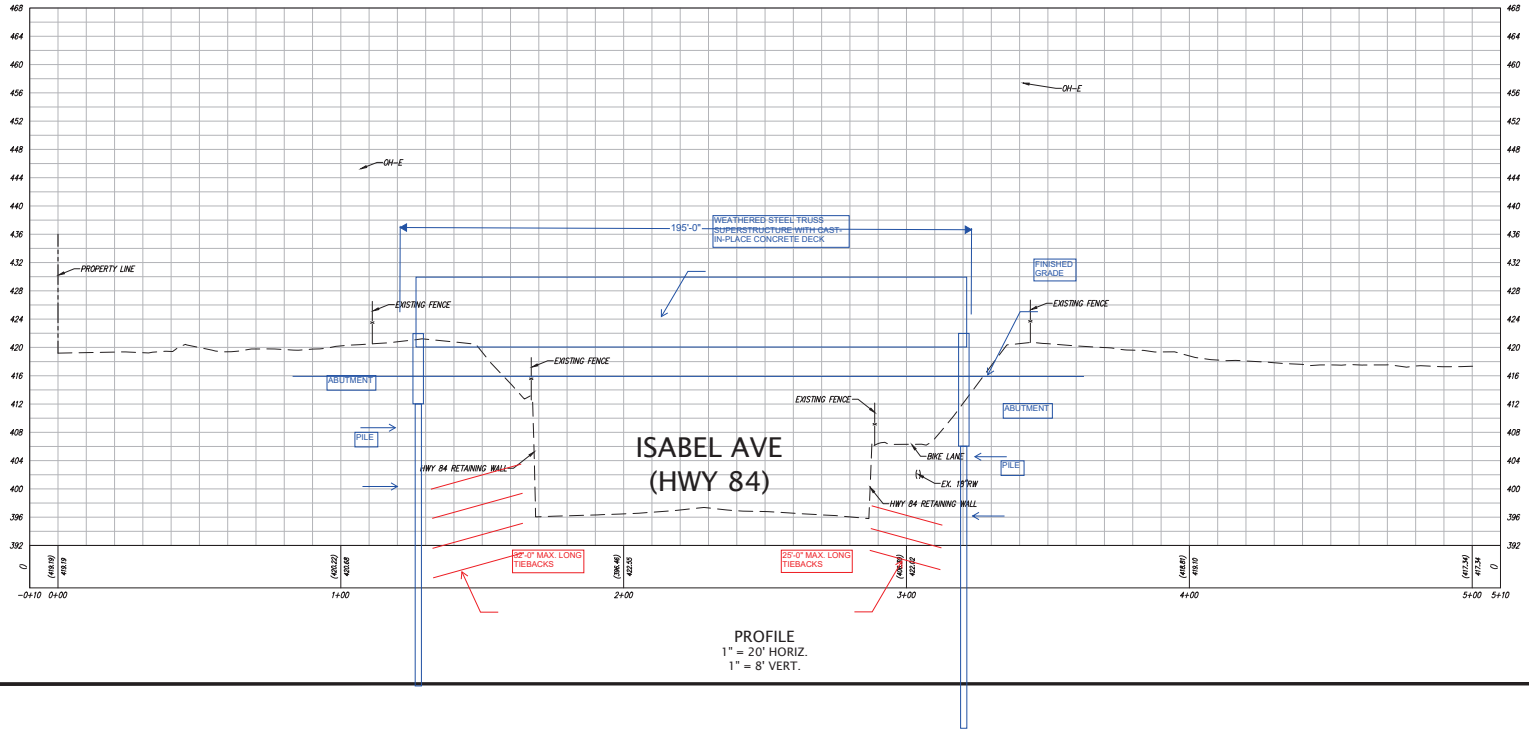
NORTH

0 10 20 40 60

Scale 1" = 20'

LEGEND

PROPOSED	EXISTING	
BW	BW	BACK OF WALK
CB	CB	CATCH BASIN
COTG	COTG	CLEANOUT TO GRADE
C	C	CONCRETE
DIP	DIP	DUCTILE IRON PIPE
ESMT	ESMT	EASEMENT
EW	EW	EDGE OF WALK
FB	FB	FACE OF BERM
FC	FC	FACE OF CURB
FW	FW	FACE OF WALL
FL	FL	FLOW LINE
GB	GB	GRADE BREAK
HP	HP	HIGH POINT
IE	IE	INVERT ELEVATION
LP	LP	LOW POINT
PV	P	PAVEMENT
POC	POC	POINT OF CONNECTION
RWL	RWL	RAINWATER LEADER
R	R	RIDGE
RE	RE	RIM ELEVATION
RD	RD	ROOF DRAIN
SL	SL	STREET LIGHT
SDJB	SDJB	STORM DRAIN JUNCTION BOX
SDMH	SDMH	STORM DRAIN MANHOLE
TC	TC	TOP OF CURB
TW	TW	TOP OF WALL



PROFILE
1" = 20' HORIZ.
1" = 8' VERT.

PASE MARKUPS2/5/20

NO.	BY	REVISION

NO.	BY	REVISION

REGISTERED PROFESSIONAL ENGINEER — JOHN KEIR WRIGHT — No. 61818 — CIVIL — STATE OF CALIFORNIA

PRELIMINARY

KIER+WRIGHT

2850 Collier Canyon Road
Livermore, CA 94551

Phone: (925) 245-8788
www.kierwright.com

EXHIBIT - BRIDGE CROSSING

OF SMP 40

FOR LIVERMORE INDUSTRIAL PARTNERS 40 LLC

LIVERMORE, CALIFORNIA

DATE	JANUARY, 2024
SCALE	AS SHOWN
DESIGNER	JAM
DRAWN BY	KAS
JOB NO.	96562-54
SHEET	1
OF	1 SHEETS

Z:\1999-\96562-54\DWG\CIVIL\EXHIBITS\96562-54-EX-BRIDGE CROSSING.dwg 1-29-24 04:53:50 PM kshaw

EXHIBIT E

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Trail Overcrossing and Trail Connections Credits

The Developer's monetary contribution towards the costs of the Trail Overcrossing and Trail Connections shall equal Seven-Hundred-Fifty-Thousand Dollars ($750,000.00) (the "Developer Obligation"). The $750,000 Developer Obligation is in addition to the design and permitting costs the Developer is responsible as set forth in the Agreement. City and Developer shall diligently pursue grant funding opportunities to fund the remaining Trail Overcrossing and Trail Connections, less the Developer Obligation. In the event that a grant funding opportunity is not successful, City shall credit Developer using Traffic Impact Fees (TIF) less the Developer Obligation, in accordance with Livermore Municipal Code Section 12.30.080, Credit and Reimbursement, and as set forth below in exchange for Developer constructing the Trail Overcrossing and Trail Connections.

The Developer shall provide, at its own cost, an Engineer's cost estimate for the Trail Overcrossing and Trail Connections, subject to the City Engineer's review and approval.

The Engineer's cost estimate shall include all hard costs (including, without limitation, contractor time, materials), management costs (equaling 5% of the hard costs), City plan check and inspection, third party inspections, ten percent contingency (10%) applied to construction costs only, City building permit fees (if any), all other permitting and regulatory fees/costs, costs (including consultant costs) for environmental and regulatory approval of the Trail Overcrossing and Trail Connections, and construction bonds and insurance. The City's TIF credits shall equal up to a maximum of 10 percent over the Engineer's cost estimate; if the final cost estimate exceeds the Engineer's cost estimate by more than 10 percent, the Developer shall pay the remaining Trail Overcrossing and Trail Connections cost over the Engineer's estimate. For avoidance of doubt, Developer shall have no right of credits or reimbursements for the design costs of the Trail Overcrossing or Trail Connections. City shall credit Developer for the Trail Overcrossing and Trail Connections as follows:

City shall provide Developer a TIF credit of the SMP 40 Project's Traffic Impact Fees (the "Impact Fee Credit") for the identified Engineer's cost estimate for the Trail Overcrossing and Trail Connections (or up to a maximum of 10 percent over this estimate as specified above). The Impact Fee Credit shall be credited against the TIF that are collected at the time each building permit is paid, and on a permit-by-permit basis as Developer's obligations to pay such impact fees accrue until the last SMP 40 Project building permit is issued.

LIVERMORE
CALIFORNIA

PLANNING COMMISSION STAFF REPORT **ITEM NO. 10.2**

DATE: March 5, 2024

TO: Chairperson and Members of the Planning Commission

FROM: Steve Riley, Acting Planning Manager

SUBJECT: Supplemental items received after the meeting.

RECOMMENDED ACTION

SUMMARY

These materials were posted online and made available to the public at the same time that they were distributed to the Planning Commission.

5.1 - Hearing to consider a request for an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Development Code Amendment, Vesting Tentative Parcel Map, Vesting Tentative Tract Map, Planned Development, and Site Plan Design Review for the SMP 39 and 40 Project to zone for and develop light industrial uses near the northwest part of the City. Materials Received: Public Comment, Staff Presentation, Developer Presentation

DISCUSSION

ATTACHMENTS

1. Supplemental Materials

Prepared by: Michele Donley
Division Clerk

From: Planning Web Email
To: Ashley Vera
Subject: FW: New eComment for Planning Commission
Date: Wednesday, March 6, 2024 8:12:01 AM

From: noreply@granicusideas.com <noreply@granicusideas.com>
Sent: Tuesday, March 5, 2024 5:36 PM
To: City Clerk <cityclerk@livermoreca.gov>; Planning Web Email <planning@livermoreca.gov>
Subject: New eComment for Planning Commission

You don't often get email from noreply@granicusideas.com. Learn why this is important

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

New eComment for Planning Commission

Katie Marcel submitted a new eComment.

Meeting: Planning Commission

Item: 5.1) Hearing to consider a request for an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Development Code Amendment, Vesting Tentative Parcel Map, Vesting Tentative Tract Map, Planned Development, and Site Plan Design Review for the SMP 39 and 40 Project to zone for and develop light industrial uses near the northwest part of the City.

eComment: Thank you for the opportunity to support the development of light industrial uses in the Tri-Valley region. Innovation Tri-Valley Leadership Group (ITV) is dedicated to fostering collaboration among businesses, educational institutions, and civic leaders. We endorse the City of Livermore's effort to zone and develop light industrial areas as it aligns with our Vision 2040 goal of ensuring that industrial-zoned lands maximize the job-creation and innovation potential of the area. ITV encourages the Planning Commission to keep the 2040 Vision for the region in mind as the priorities identified represent over 1,000 regional stakeholders who participated in the Vision planning. The vision specifically cites the planning of light industrial parks and innovation “zones” as a key driver of the region’s innovation ecosystem and future economic development. Thank you for your consideration, Katie Marcel, CEO, Innovation Tri-Valley Leadership Group

View and Analyze eComments

This email was sent from https://livermore.granicusideas.com.

Livermore Valley
CHAMBER of COMMERCE

March 5, 2024

City of Livermore Planning Commission

1052 S Livermore Ave.

Livermore, CA 94550

RE: OMP Oaks Business Park

Dear Members of the Planning Commission,

I am writing to advocate for the Livermore Business Community representing the Livermore Valley Chamber of Commerce on consideration currently underway for SMP 39 & 40 projects, presented by Overton Moore Properties. We support the proposed project brought forth by OMP to create additional business interest in Livermore and assist with expansions needed by many successful businesses already located in our city.

Lam Research is in need of expansion opportunity and OMP has already signed a lease agreement with them for expansion. This is only one example of the needs in Livermore for business expansion. The possibility of business expansion is critical to their success and that of our community. From the perspective of economic vitality for our city, it is when we can be flexible and consider the future for business that we all win long term. The business parks proposed will be valuable assets to our community and the development of viable businesses in the near future. OMP has proven their engagement in the community and have a good reputation for envisioning the needs of a community.

The Livermore Valley Chamber of Commerce supports the efforts of OMP and encourages the Planning Commission to consider their proposal as part of our preparation for future business. Please consider approving their proposal and retaining the economic vitality that we have established for Livermore by providing the necessary accommodations for business in our city. This will provide meaningful employment opportunities for residents and prosperity for our community.

OMP is committed to excellence and community enrichment. We support their efforts and projects for Livermore.

Thank you for your consideration,

Sherri Souza

Sherri Souza
CEO/President
Livermore Valley Chamber of Commerce
2157 First St
Livermore, CA 94550
925-447-1606

VIA E-MAIL

March 5, 2024
City of Livermore Planning Commission
City Council Chambers
1016 S. Livermore Avenue
Livermore, CA 94550
Em: planning@LivermoreCA.gov

RE: City of Livermore's SMP 39 and 40 Planning Commission Meeting

Dear Ashley Vera,

On behalf of "**Carpenters Local 713**", my Office is submitting these comments for the City of Livermore's ("**City**") Draft Environmental Impact Report ("**Draft EIR**" or "**DEIR**") and Final Environmental Impact Report ("**Final EIR**" or "**FEIR**") for the **March 5, 2024 Planning Commission Meeting** for the SMP 39 and 40 Project ("**Project**").

According to the Project's Notice of Availability ("**NOA**") of a Draft EIR Project Description:

> "On **SMP 38**, the proposed project includes a Sphere of Influence (SOI) Amendment to **include** SMP 38 within the **City of Livermore** SOI and **remove** it from the **City of Pleasanton's** SOI. The City of Livermore General Plan land use designation for SMP 38 would remain Limited Agriculture and Open Space/Sand and Gravel and the Alameda County zoning designation would remain Agriculture. **Development of SMP 38** is **not proposed**.
>
> For **SMP 39**, the proposed project would include development of a total of **up to six light industrial buildings**, consisting of **up to approximately 755,500 square feet** (sf) of new building space, and associated **internal roadways** and **other** improvements. **For SMP 40**, the proposed project would include development of **two industrial buildings** containing up to **759,275 sf of new building space** with

related **internal roadways** and **other** improvements. A number of approvals would be required for development of SMP 39 and SMP 40, including a **SOI Amendment for SMP 39**, **General Plan Amendment**, **Pre-zoning** and **Annexation**, **Zoning Map Amendment**/Planned Development, Vesting Tentative Subdivision **Maps**, a **Pre-Annexation Agreement**, and **Development Agreement**. A **Site Plan Design Review** entitlement is required for SMP 39 and SMP 40, which would include a review of the site plan, building, and landscape design; however, the entitlement is **only proposed for SMP 40 at this time**. A Site Plan Design Review entitlement will be required **at a later date** for the future development of **SMP 39**. In addition, the proposed project would include **annexation of four additional parcels** (APNs 904-10-2-3, -5, -7, and -8) located **east of SMP 40**. Development is **not proposed** on the additional parcels **as part** of the proposed project.

The project would include a **paved at-grade, on-site trail along the boundaries** of the SMP 40 site, consistent with the City's Active Transportation Plan. Specifically, the on-site trail would extend from the northeastern corner of the site, along the project site's eastern, southern, and western boundaries, before connecting to an existing off-site paved shared-use path at the northwestern corner of site, which extends along the west side of the Oaks Business Park to the north and connects to West Jack London Boulevard.

In addition, the project would include a **new off-site connection to the existing Arroyo Mocho Trail**, located on the east side of Isabel Avenue/SR 84. For the purposes of the Draft EIR analysis, three alternatives for the proposed off-site Isabel Avenue/SR 84 crossing to the existing Arroyo Mocho Trail are considered and evaluated in the Draft EIR, including the following, and described in more detail in the Draft EIR:

- Trail Connection Option 1 – **At-Grade** Crossing at **Discovery Drive**;
- Trail Connection Option 2 – **Undercrossing** at **Isabel** Bridge; and
- Trail Connection Option 3 – **Overcrossing** of **Isabel** Avenue/SR 84."

NOA of Draft EIR, pp. 1-2, emph. added.

The concurrently circulated Draft EIR contains the same project description. DEIR, pp. 1-2—1-4.

Carpenters Local 713 is a labor union representing union carpenters in Alameda County , and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects.

Local 713 members live, work, and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

Carpenters Local 713 expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

Carpenters Local 713 incorporates by reference all comments related to the Project or its CEQA review, including the Environmental Impact Report. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, Carpenters Local 713 requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT

The City should require the Project to be built using local workers who have graduated from a Joint Labor-Management Apprenticeship Program and make a commitment to hiring a local workforce.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7,

[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 ("**AB2011**"). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts.

II. THE PROJECT WOULD BE APPROVED IN VIOLATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

A. Background Concerning the California Environmental Quality Act

The California Environmental Quality Act is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. 14 California Code of Regulations ("**CEQA Guidelines**"), § 15002, subd. (a)(1).[5] At its core, its purpose is to "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

1. Background Concerning Environmental Impact Reports

CEQA directs public agencies to avoid or reduce environmental damage, when possible, by requiring alternatives or mitigation measures. CEQA Guidelines, § 15002, subds. (a)(2)-(3); see also *Berkeley Keep Jets Over the Bay Committee v. Board of Port Comes* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *Laurel Heights Improvement Assn.*, 47 Cal.3d at p. 400. The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA

[5] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 et seq., are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. Cal. Pub. Res. Code, § 21083. The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217.

Guidelines, § 15002, subd. (a)(2). If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in Public Resources Code section 21081. See CEQA Guidelines, § 15092, subds. (b)(2)(A)-(B).

While the courts review an EIR using an 'abuse of discretion' standard, the reviewing court is not to *uncritically* rely on every study or analysis presented by a project proponent in support of its position. *Berkeley Jets*, 91 Cal.App.4th at p. 1355 (quoting *Laurel Heights Improvement Assn.*, 47 Cal.3d at pp. 391, 409 fn. 12) (internal quotations omitted). A clearly inadequate or unsupported study is entitled to no judicial deference. *Id.* Drawing this line and determining whether the EIR complies with CEQA's information disclosure requirements presents a question of law subject to independent review by the courts. *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131. As the court stated in *Berkeley Jets*, prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process. 91 Cal.App.4th at p. 1355 (internal quotations omitted).

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450). The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. *Id.* For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Id.*

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "fair argument" standard under which an EIR must be prepared whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail*

Botanical Gardens Found., Inc. v. City of Encinitas (1994) 29 Cal.App.4th 1597, 1602; *Friends of "B" St.* v. *City of Hayward* (1980) 106 Cal.3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." PRC, § 21151; see *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75; accord *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884. Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. PRC, §§ 21100 (a), 21151; CEQA Guidelines, § 15064 (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the agency must adopt a negative declaration. PRC, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063 (b)(2), 15064(f)(3).

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." PRC, § 21068; CEQA Guidelines, § 15382. A project may have a significant effect on the environment if there is a reasonable probability that it will result in a significant impact. *No Oil, Inc.*, 13 Cal.3d at p. 83 fn. 16; see *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309. If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063(b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrigation Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom*, 202 Cal.App.3d at p. 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen,* 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of*

Los Angeles (1982) 134 Cal.App.3d 491; *Friends of "B" St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064(f)(1).

B. The Project May Have a Significant Impact on Biological Resources

There is substantial evidence the Project will have a significant impact on biological resources. As discussed in further detail in a comment letter from biological resources expert Shawn Smallwood, PhD with regards to the proposed Project, incorporated by reference herein, "the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, interference with wildlife movement, and wildlife-automobile collision mortality." (See **Exhibit D** [December 12, 2023 comment letter from Shawn Smallwood, PhD regarding SMP 38, SMP 39, and SMP 40 biological resources analysis].)

First, for example, with regards to the potential for habitat loss, Dr. Smallwood predicts:

> SMP 38 (111.7 acres), SMP 39 (51.9 acres) and SMP 40 (41 acres) support 11.4 bird nests/acre/year. Based on this assumption, the combined projects, SMP 39 and SMP 40, on 92.9 acres would eliminate 1,059 nest sites, and assuming SMP 38 is also later developed, then the combined projects, SMP 38, SMP 39, ad SMP 40, on 204.6 would eliminate 2,332 nest sites.

(**Exhibit D**, p. 28.)

Accordingly, Dr. Smallwood points out that this loss in nest sites would constitute a significant impact from the Project that was not quantitatively addressed in the Draft EIR. (**Exhibit D**, p. 28.) Further, Dr. Smallwood notes that the loss in nests would lead to a loss in the reproductive capacity of the site, thus decreasing the number of birds at the Site over time. (*Id.*)

Second, Dr. Smallwood discusses the Projects impacts on interference with wildlife movement, highlighting that the DEIR's analysis of whether the Project will interfere with wildlife movement in the Project Site area is "flawed and misleading." (**Exhibit D**, p. 29.) Specifically, Dr. Smallwood states that:

> According to the DEIR, "The project area does not fall within an Essential Habitat Connectivity area mapped by the CDFW." However, at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18486, the California Essential Habitat Connectivity Project specifically points out

> that it is not: "A California Department of Fish and Game or US Fish and Wildlife Service response to potential impacts to a habitat or species from a project subject to the California Environmental Quality Act (CEQA)," nor "Fine scale, with every important piece of habitat identified" nor ""Essential", meaning the only places of importance" nor "A solution by itself for how to provide necessary linkages for any given species of plant or animal... Linkage designs will vary depending on focal species chosen and the goal of providing connected habitat for a chosen species might be met several different ways" nor "The final word on connectivity for California." With analytical grid cells of 2,000 acres, the spatial grain of the California Essential Habitat Connectivity Project is much too coarse for the conclusion the DEIR draws from it.

(**Exhibit D**, p. 29.)

Moreover, Dr. Smallwood points out that the DEIR contains a flawed "argument that SMP 39 is cut off from open areas by well-trafficked roads, the airport, the gravel quarries, and therefore cannot function as a wildlife movement corridor" and notes that the same argument is used for SMP 40. (*Id.*) However, as Dr. Smallwood notes, the DEIR simply uses speculation here and provides no supporting evidence to this assertion. (*Id.*)

Third, Dr. Smallwood discusses the Project's traffic impacts to wildlife, noting that traffic generated from the Project will endanger wildlife that must cross roads used by traffic getting to and from the Project Site. (**Exhibit D**, p. 30.) Dr. Smallwood discusses traffic-caused wildlife mortality and highlights various traffic mortality numbers collected from a wildlife mortality study performed only eleven (11) miles from the Project Site in the County of Contra Costa. (*Id.*) Dr. Smallwood concludes an analysis should be done on "whether increased traffic generated by the project site would similarly result in local impacts on wildlife." (*Id.* at p. 31.)

In addition, the biological impact analysis of the EIR is legally flawed for the following reasons.

First, the DEIR's biological resources impact analysis relies on multiple inadequate biological field surveys outlined in Appendices D and E of the DEIR prepared by Monk & Associates that are described in insufficient detail.

For example, with regards to the field surveys, the DEIR states that:

> "SMP 39 and SMP 40 were both first surveyed in 2000, with follow-up surveys over the years, including in November 2013, for various development proposals. In addition, a **project-specific field survey** was conducted on SMP 39 on **October 14, 2021**, and on SMP 40 on **June 10, 2019** to record biological resources within the sites, and to assess the likelihood of resource agency regulated areas to be located within the sites. An **additional survey** was conducted for SMP 40 on **June 21, 2019** to flag the Arroyo Mocho's riparian drip line to allow for the project engineers to survey the limits of the riparian vegetation and overlay the area on the project site plan, and **another general survey** of SMP 40 was conducted on **September 10, 2021.**"

DEIR, p. 4.3-24. [Emphasis added.']

However, the DEIR's reliance on these biological resources field surveys is improper for several reasons.

First, the DEIR and its accompanying Appendices D and E leave out crucial information about the site surveys.

In summarizing the various site surveys that occurred in 2013, 2019, and 2021, DEIR Appendix D's Biological Resources Analysis ("**SMP-39 BRA**") states that "[e]ach site survey involved searching all habitats on the site and recording all plant and wildlife species observed. . . ." and that the "evaluation included an examination of the site to determine if there could be potential areas within the project site that would be regulated as waters of the United States and/or State . . ." DEIR Appendix D, p. 2. Thus, the SMP-39 BRA field surveys seem to indicate that visual inspections were done during these site visits. However, SMP-39 BRA is insufficient for numerous reasons as it leaves out crucial information about the site surveys while relying on the surveys to form conclusions about the Project's potential biological resources impacts.

As a preliminary matter, *one* (1) single field survey alone for just the SMP-39 Project Site is insufficient to adequately identify all of the potential habitats and plant and wildlife species occurring within the Project Site, as the site surveys purport to have looked for. In the City's Final EIR Responses to Comments, Response No. 5-12, the City counters our office's prior comment that "[o]ne single field survey is sufficient to get a baseline description of a project site's pant communities and wildlife habitats and to determine if additional surveys for special-status species are necessary." (FEIR

Response to Comments, p. 2-75.) However, as Dr. Smallwood notes in his comment letter on the Project, "[m]ore surveys are needed than my two surveys [sic] to inventory use of the project site by wildlife" (**Exhibit D**, pp. 14-15), that the appropriate detection surveys have not been completed at SMP 39 and SMP 40," (*id.* at p. 17), that "[r]econnaissance surveys for wildlife are not designed to detect special-status species" indicating that protocol-level detection surveys are appropriate but that Monk & Associates did not perform such detection surveys here, thus rendering the Draft EIR's "characterization of the existing environmental setting . . . therefore incomplete and inaccurate." (*Id.* at p. 19.) Therefore, it is clear that the single survey conducted for SMP-39 is inadequate.

Moreover, the SMP-39 BRA does not specify what time of the day the surveys were conducted during, (DEIR Appendix D, p. 2) which, again, leaves open the possibility that certain species, for example, nocturnal species, could present themselves at different times of the day. This is further highlighted in Dr. Smallwood's comment letter, where he notes that:

> For none of the above surveys was there reporting of what time the surveys began, or how long the surveys lasted. No checklist is shared of habitat elements that the biologists might have used during their survey to later crosscheck against documented habitats of each special-status species. No explanation is provided of whether or how animal behavior data or other evidence contributed to the biologist's assessment of the site for its importance to animal movement. It is therefore difficult to assess survey outcomes relative to survey effort and methods.

(**Exhibit D**, p. 16.)

Even further, in one (1) single survey, the surveyor may fail to identify species that would only present themselves during certain times of the *year*. According to the SMP-39 BRA in Appendix D, for example, the most recent surveys were conducted in June 2019 (a summer month) and October 2021 (a fall month), while failing to account for the spring and winter months. DEIR Appendix D, p. 2. However, there may be certain plant or animal species that would not be identifiable to an observer during the summer or fall months but that could nevertheless be present at the Project Site and be identifiable during other seasons of the year. For example, and as noted by Dr. Smallwood, in response to the DEIR's assertion that no special-status plants were observed during some of the surveys at the Project Sites during various months over the years, Dr. Smallwood responds that this reporting is misleading

"because only one of the several surveys was conducted during the plant blooming season. Monk and Associates (2021, 2023) did not meet the minimum standards of [California Department of Fish and Wildlife's ("**CDFW**")] (2018) plant survey guidelines. While the FEIR's Responses to Comments counters our office's prior comments, asserting that the CDFW's survey guidelines cited are guidelines for conducting floristic surveys for rare and endangered or other special-status species, the site surveys still failed to meet the CDFW's minimum plant survey guidelines standards. Thus, new surveys must be conducted that meet these standards.

Therefore, the DEIR's reliance on surveys not in compliance with California Department of Fish and Wildlife's survey guidelines[6] and its misuse of the California Natural Diversity Database ("**CNDD**") resulted in potentially inaccurate determinations. For example, with regards to botanical field surveys, the CDFW's survey guidelines state that such field surveys should be conducted in a way that will maximize the likelihood of identifying special status plants and sensitive natural communities that may be present at a site.[7] Specifically, the guidelines state that "[m]ore than one field visit is usually necessary to adequately capture the floristic diversity of a project area."[8]

For each of the foregoing reasons, the Project may have a significant impact on biological resources. Accordingly, the DEIR's findings as to the Project's biological impacts are not supported with substantial evidence that is of verifiable or credible value and the DEIR must be revised and recirculated to reassess those impacts, including on the wildlife species with potential to occur on the Project Site using protocol-level detection surveys and describing those surveys with sufficient detail.

C. The Project May Have Significant Noise Impacts.

There is substantial evidence that the Project will have significant traffic impacts. As discussed by Principal Steve Rogers of Steve Rogers Acoustics, "the evaluation of noise impacts during the construction phases is incomplete and contains a significant

[6] *See*, California Natural Resources Agency, *Department of Fish and Wildlife Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities, available at* https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline, pp. 4, 5-6, accessed on Oct. 9, 2023), updated on Feb. 3, 2023; *see generally* California Department of Fish and Wildlife California Natural Diversity Database, *available at* https://wildlife.ca.gov/Data/CNDDB/Plants-and-Animals (last visited on Oct. 9, 2023.)

[7] California Natural Resources Agency, *supra*, at p. 4.

[8] *Id.*

calculation error." (**Exhibit E**, p. 3 [December 12, 2023 comment letter re City of Livermore SMP 38/SMP 39/SMP 40 Project Review of DEIR Noise Section & Appendices]), fully incorporated herein.

First, as noted by Mr. Rogers for the DEIR's construction noise impacts, the DEIR concludes there will be a less than significant impact for on-site construction, but per the DEIR's analysis, the DEIR fails to adequately support this conclusion for multiple reasons. (**Exhibit E**, p. 2.) For example, the DEIR fails to include SMP 39's construction noise impacts in its section 4.6 analysis. (*Id.*) Second, Mr. Rogers notes that the noise analysis for SMP 40 is incomplete. Specifically,

> The noise impact analysis for construction on the SMP 40 site compares Salter's noise level predictions with instantaneous maximum noise level (Lmax) limits of 70 dBA during the day and 60 dBA at night, which are taken from Policy N-1.5.P3 of the City of Livermore General Plan.
>
> However, these Lmax noise limits are not the only local regulations that would apply to construction noise on the SMP 40 site.
>
> . . .
>
> Similarly, the DEIR does not include an DNL analysis for construction noise from SMP 40 to show that it will be below the 60 dBA exterior noise standard taken from land-use compatibility table (Table 9-7) in the General Plan. This will be particularly important if any construction work is to occur at night.

(**Exhibit E**, pp. 2-3.)

Third, Mr. Rogers highlights that there was an error in the calculations for SMP 40 with regards to various construction equipment pieces at a 50-foot distance. (*Id.*) Lastly, Mr. Rogers states that the construction noise analysis on the east side of the SMP 40 site is overlooked, as it assumes receivers 884 feet away from the equipment, while during other phases of construction, the noisy equipment may be operating closer than 884-feet from nearby residential uses. (*Id.*)

For each of the foregoing reasons, the Project may have a significant noise impact and the EIR should therefore be revised and recirculated.

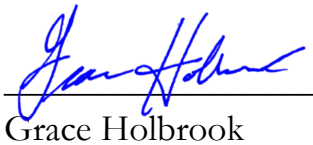
III. THE FEIR CANNOT BE CERTIFIED AS THE CITY HAS FAILED TO RESPOND TO THE ISSUES RAISED BY CARPENTERS LOCAL 713

The City's argues that recirculation of the EIR is not required as the comments submitted on the FEIR "did not identify any new significant effect, substantial increase in severity of an impact identified in the EIR, or any significant new information." (Staff Report **Exhibit D** at 1). However, as reiterated above, numerous substantial issues with the EIR were identified by Carpenters Local 713 in its two prior comment letters. (DEIR Comment Letter, **Exhibit F**; FEIR Comment Letter, **Exhibit G**). The City provided inadequate responses to the issues addressed in the DEIR Comment Letter. Further, despite the City stating that it would provide a response to the FEIR Comment Letter, no such memorandum has been provided prior to the comment deadline for this Planning Commission Hearing. (See Staff Report **Exhibit D** at 1). As the City has failed to provide responded to the significant issues raised by Carpenters Local 713, the FEIR cannot be certified under CEQA.

IV. CONCLUSION

Based on the foregoing, the City should deny the FEIR's certification, and the Environmental Impact Report should be revised and recirculated pursuant to CEQA, consistent with the comments and issues identified in this and previous comment letters.

Sincerely,



Grace Holbrook
Attorneys for Carpenters Local 713

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B);

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C);

December 12, 2023 Comment Letter from Biological Resources Expert regarding SMP 38, SMP 39, and SMP 40 Project (Exhibit D); and

December 12, 2023 Comment Letter from Noise Expert Steve Rogers regarding Review of DEIR Noise Section an Appendices (Exhibit E).

EXHIBIT A

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

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

ATTACHMENT 3

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
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Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
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Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6826**	**1,721.6826**	**0.1294**	**0.0000**	**1,724.9187**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6823**	**1,721.6823**	**0.1294**	**0.0000**	**1,724.9183**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4103	1.4103
2	**12-1-2021**	**2-28-2022**	1.3613	1.3613
3	**3-1-2022**	**5-31-2022**	1.1985	1.1985
4	**6-1-2022**	**8-31-2022**	1.1921	1.1921
5	**9-1-2022**	**11-30-2022**	1.1918	1.1918
6	**12-1-2022**	**2-28-2023**	1.0774	1.0774
7	**3-1-2023**	**5-31-2023**	1.0320	1.0320
8	**6-1-2023**	**8-31-2023**	1.0260	1.0260

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	2.8857	2.8857
11	**3-1-2024**	**5-31-2024**	1.6207	1.6207
		Highest	2.8857	2.8857

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6554**	**1,418.6554**	**0.1215**	**0.0000**	**1,421.6925**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6550**	**1,418.6550**	**0.1215**	**0.0000**	**1,421.6921**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4091	1.4091
2	**12-1-2021**	**2-28-2022**	1.3329	1.3329
3	**3-1-2022**	**5-31-2022**	1.1499	1.1499
4	**6-1-2022**	**8-31-2022**	1.1457	1.1457
5	**9-1-2022**	**11-30-2022**	1.1415	1.1415
6	**12-1-2022**	**2-28-2023**	1.0278	1.0278
7	**3-1-2023**	**5-31-2023**	0.9868	0.9868
8	**6-1-2023**	**8-31-2023**	0.9831	0.9831

9	**9-1-2023**	**11-30-2023**	0.9798	0.9798
10	**12-1-2023**	**2-29-2024**	2.8757	2.8757
11	**3-1-2024**	**5-31-2024**	1.6188	1.6188
		Highest	2.8757	2.8757

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT 3

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

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

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

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

1640 5th St.., Suite 204 Santa
Santa Monica, California 90401
Tel: (949) 887-9013
Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Ashley Vera, Senior Planner
City of Livermore
Community Development Department
1052 S. Livermore Avenue
Livermore, CA 94550

12 December 2023

RE: SMP 38, SMP 39. SMP 40

Dear Ms. Vera,

I write to comment on potential impacts to biological resources that could result from the proposed SMP 38, SMP 39. SMP 40 Project, which I understand would add 1,514,275 square feet of floor space in eight speculative industrial buildings up to 55 feet tall on 217.04 acres located on APNs) 904-1-7-21; 904-1-2-12; 904-1-7-32; 904-3-1-4; 904-10-2-2, -3, -5, -7, and -8 west of Isabel Avenue, north of Stanley Boulevard, south of West Jack London Boulevard, and east of El Charro Road. I comment on the analyses of impacts to biological resources in the DEIR and in Monk & Associates (2021).

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, wildlife interactions with the anthrosphere, and conservation of rare and endangered species. I authored many papers on these and other topics. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I've lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-seven years. My CV is attached.

SITE VISIT

I visited the SMP 40 for 2.22 hours from 14:43 to 16:35 hours on 28 November 2023, and SMP 38 and SMP 39 for 2.83 hours from 06:45 to 09:35 hours on 29 November 2023. At SMP 40, I surveyed from a cul-du-sac on the north edge of the site. At SMP 38 and SMP 39, I walked the northern perimeters, stopping to scan for wildlife with use of binoculars. I recorded all species of vertebrate wildlife I detected, including those whose members flew over the sites or were seen nearby, off the sites. Animals of uncertain species identity were either omitted or, if possible, recorded to the Genus or higher taxonomic level.

Conditions were mostly cloudy still with temperatures of 62-55° F on the 28th and 46-50° F on the 29th. The sites have been previously disked, and at the time of the surveys they were covered by annual grasses and ruderal vegetation (Photos 1–2).

Photos 1–2. *Views of SMP 40 (top) and SMP 39 with a flock of Canada goose (bottom), 28-29 November 2023.*

I detected 46 species of vertebrate wildlife at or adjacent to the project site, including 10 species with special status (Table 1). I saw Botta's pocket gopher (Photo 3) and California ground squirrel (Photo 4), both species of which are ecological keystone species. I saw loggerhead shrike (Photo 5), Cooper's hawk and American kestrel (Photos 6 and 7), western meadowlark (Photo 8), house finch and killdeer (Photos 9 and 10), black phoebe and white-crowned sparrow (Photos 11 and 12), mourning dove (Photo 13), Say's phoebe and yellow-rumped warbler (Photos 14 and 15), savannah sparrow (Photo 16), and lesser goldfinch and bushtit (Photos 17 and 18), among the other species listed in Table 1. Many of the species actively foraged on the site, including coyote, Cooper's hawk, red-tailed hawk, horned lark, Canada goose and Aleutian cackling goose, killdeer, western meadowlark, house finch and others. I observed Some species in high abundance, including western meadowlark and mourning dove. California ground squirrels occupied all three sites, but were particularly abundant on SMP 40.

Table 1. *Species of wildlife I observed during 5.05 hours of survey on 28-29 November 2023.*

Common name	***Species name***	**Status[1]**	**Notes**	**SMP**			**Just offsite**
				38	**39**	**40**	
Sierran treefrog	*Pseudacris regilla*		Calling	X	X		
Cackling goose	*Branta hutchinsii*	TWL	Foraging	X	X		X
Canada goose	*Branta canadensis*		Foraging	X	X		X
Mallard	*Anas platyrhynchos*		Flyover	X	X	X	X
Mourning dove	*Zenaida macroura*		Many	X	X	X	X
Killdeer	*Charadrius vociferus*		Foraging	X	X	X	
Short-billed gull	*Larus brachyrhynchus*		Flyover			X	
Ring-billed gull	*Larus delawarensis*		Flyover	X	X	X	
California gull	*Larus californicus*	BCC, TWL	Flyover	X	X	X	
Herring gull	*Larus argentatus*		Flyover			X	
Glaucous-winged gull	*Larus glaucescens*		Flyover		X	X	
Double-crested cormorant	*Nannopterum auritum*	TWL	Flyover		X		X
Great blue heron	*Ardea herodias*		Flyover		X		X
Turkey vulture	*Cathartes aura*	BOP	Foraging		X	X	
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP	SMP 39		X		
Cooper's hawk	*Accipiter cooperii*	TWL, BOP	Perched at airport, foraged project site		X		X
Red-tailed hawk	*Buteo jamaicensis*	BOP		X	X	X	X
Hairy woodpecker	*Dryobates villosus*		Flyover	X			X
Northern flicker	*Colaptes auratus*		SMP 40			X	
American kestrel	*Falco sparverius*	BOP		X	X	X	
Black phoebe	*Sayornis nigricans*			X	X	X	X
Say's phoebe	*Sayornis saya*		SMP 39		X		
Loggerhead shrike	*Lanius ludovicianus*	SSC2	SMP 39		X		
California scrub-jay	*Aphelocoma californica*					X	X
American crow	*Corvus brachyrhynchos*			X	X	X	X
Common raven	*Corvus corax*			X	X	X	X
California horned lark	*Eremophila alpestris actia*	TWL	Foraging			X	
Violet-green swallow	*Tachycineta thalassina*		SMP 40			X	X

Common name	***Species name***	**Status[1]**	**Notes**	**SMP**			**Just offsite**
				38	**39**	**40**	
Bushtit	*Psaltriparus minimus*		Just offsite				X
Northern mockingbird	*Mimus polyglottos*				X	X	X
European starling	*Sturnus vulgaris*	Non-native		X	X	X	X
American pipit	*Anthus rubescens*		Foraging		X		
House finch	*Haemorphous mexicanus*				X	X	X
Lesser goldfinch	*Spinus psaltria*		Just offsite				X
Lawrence's goldfinch	*Spinus lawrencei*	BCC	SMP 40			X	
White-crowned sparrow	*Zonotrichia leucophrys*				X	X	X
Savannah sparrow	*Passerculus sandwichensis*		SMP 38, SMP 39		X		
Lincoln's sparrow	*Melospiza lincolnii*		SMP 38		X		X
California towhee	*Melozone crissalis*				X		X
Western meadowlark	*Sturnella neglecta*		Many	X	X	X	X
Red-winged blackbird	*Agelaius phoeniceus*					X	
Brown-headed cowbird	*Molothrus ater*					X	
Yellow-rumped warbler	*Setophaga coronata*			X	X	X	X
Desert cottontail	*Sylvilagus audubonii*		SMP 38				X
California ground squirrel	*Otospermophilus beecheyi*		Many	X	X	X	X
Coyote	*Canis latrans*		SMP 39		X		
Botta's pocket gopher	*Thomomys bottae*		Burrows		X		X

[1] Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

Photo 3. *Botta's pocket gopher mounds on the project site, 29 November 2023.*

Photo 4. *California ground squirrels on the SMP 40 portion of the project site, 28 November 2023.*

Photo 5. *Loggerhead shrike on the SMP 39 portion of the project site, 29 November 2023.*

Photos 6 and 7. *Cooper's hawk (L) and American kestrel (R) at the project site, 29 November 2023.*

Photo 8. *One of many western meadowlarks foraging on the SMP 39 portion of the project site, 29 November 2023.*

Photos 9 and 10. *House finches (top) and one of many killdeer (bottom) on the project site, 28-29 November 2023.*

Photos 11 and 12. *Black phoebe (L) and white-crowned sparrow (R) on the project site, 28-29 November 2023.*

Photo 13. *One of many mourning doves foraging on the SMP 39 portion of the project site, 29 November 2023.*

Photos 14 and 15. *Say's phoebe (top) and yellow-rumped warbler (bottom) on the project site, 28-29 November 2023.*

Photo 16. *Savannah sparrow on the SMP 39 portion of the project site, 29 November 2023.*

Photos 17 and 18. *Lesser goldfinch (L) and bushtit (R) just off the project site, 29 November 2023.*

I fit nonlinear regression models to the cumulative numbers of vertebrate species I detected with time into my surveys to predict the number of species that I would have detected with a longer survey or perhaps with additional biologists available to assist. The models are logistic growth models which reach asymptotes that correspond with the maximum numbers of vertebrate wildlife species that could have been detected during each survey. In this case, the models predict 46 and 118 species of vertebrate wildlife were available to be detected on the evening of the 28th and the morning of the 29th, respectively, the difference likely due to the onset of darkness during the evening survey of the 28th. Compared to models fit to data I collected from 18 other sites in the region between 2019 and 2023, the data from this project site exceeds the upper bound of the 95% confidence interval of the rate of accumulated species detections with time into the survey (Figure 1). Importantly, however, the species I detected on November 28-29 composed only a fraction of the species that would occur at the project site over the period of a year or longer. This is because many species are seasonal in their occurrence.

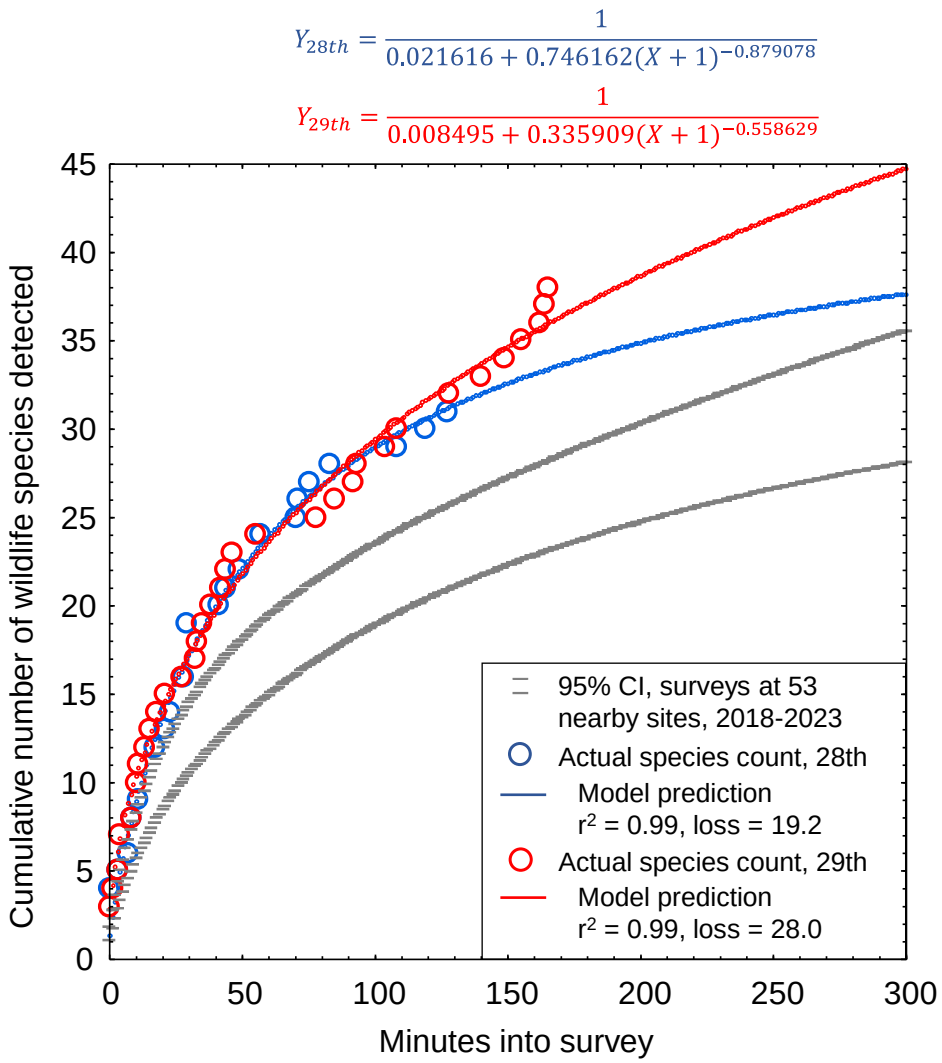


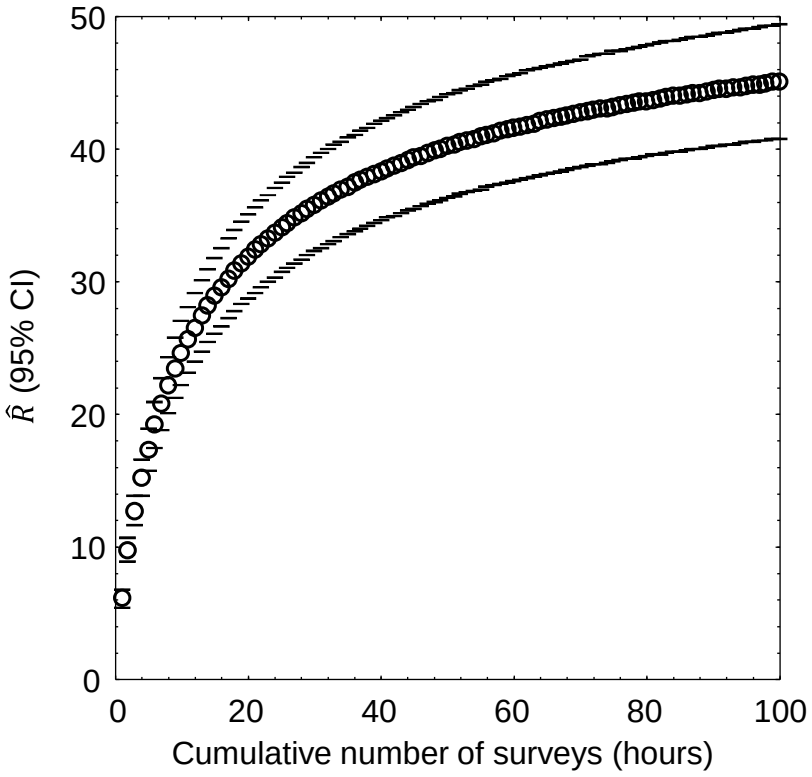
Figure 1. *Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on visual-scan surveys on 28-29 November 2023. Note that the relationships would differ if the surveys were based on another method or during another season.*

At least a year's worth of surveys would be needed to more accurately report the number of vertebrate species that occur at the project site, but I only have Noriko's one survey. However, by use of an analytical bridge, a modeling effort applied to a large, robust data set from a research site can predict the number of vertebrate wildlife species that likely make use of the site over the longer term. As part of my research, I completed a much larger survey effort across 167 km² of annual grasslands of the Altamont Pass Wind Resource Area, where from 2015 through 2019 I performed 721 1-hour visual-scan surveys, or 721 hours of surveys, at 46 stations. I used binoculars and otherwise the methods were the same as the methods I and other consulting biologists use for surveys at proposed project sites. At each of the 46 survey stations, I tallied new species detected with each sequential survey at that station, and then related the cumulative species detected to the hours (number of surveys, as each survey lasted 1 hour) used to accumulate my counts of species detected. I used combined quadratic and simplex methods of estimation in Statistica to estimate least-squares, best-fit nonlinear models of the number of cumulative species detected regressed on hours of survey (number of surveys) at the station: $\hat{R} = \frac{1}{1/a+b\times(Hours)^c}$, where $\hat{R}$ represented cumulative species

richness detected. The coefficients of determination, r^2, of the models ranged 0.88 to 1.00, with a mean of 0.97 (95% CI: 0.96, 0.98); or in other words, the models were excellent fits to the data.

I projected the predictions of each model to thousands of hours to find predicted asymptotes of wildlife species richness. The mean model-predicted asymptote of species richness was 57 after 11,857 hours of visual-scan surveys among the 46 stations of my research site. I also averaged model predictions of species richness at each incremental increase of number of surveys, i.e., number of hours (Figure 2). On average I would have detected 17.5 species over my first 5.05 hours of surveys at my research site in the Altamont Pass (5.05 hours to match the 5.05 hours I surveyed at the project site), which composed 30.7% of the predicted total number of species I would detect with a much larger survey effort at the research site. Given the example illustrated in Figure 2, the 46 species I detected after my 5.05 hours of survey at the project site likely represented 30.7% of the species to be detected after many more visual-scan surveys over another year or longer. With many more repeat surveys through the year, I would likely detect $^{46}/_{0.307} = 150$ species of vertebrate wildlife at the site. Assuming my ratio of special-status to non-special-status species was to hold through the detections of all 150 predicted species, then continued surveys would eventually detect 33 special-status species of vertebrate wildlife.

Figure 2. *Mean (95% CI) predicted wildlife species richness, $\hat{R}$, as a nonlinear function of hour-long survey increments across 46 visual-scan survey stations across the Altamont Pass Wind Resource Area, Alameda and Contra Costa Counties, 2015–2019. Note that the location of the study is largely irrelevant to the utility of the graph to the interpretation of survey outcomes at the project site. It is the pattern in the data that is relevant, because the pattern is typical of the pattern seen elsewhere.*



Because my prediction of 150 species of vertebrate wildlife, including 33 special-status species of vertebrate wildlife, is derived from daytime visual-scan surveys, and would detect few nocturnal mammals such as bats, the true number of species composing the wildlife community of the site must be larger. My reconnaissance surveys should serve

only as a starting point toward characterization of the site's wildlife community, but they certainly cannot alone inform of the inventory of species that use the site. More surveys are needed than my two survey to inventory use of the project site by wildlife. Nevertheless, the large number of species I predict at the project site is indicative of a relatively species-rich wildlife community that warrants a serious survey effort.

EXISTING ENVIRNMENTAL SETTING

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the biological species that use the site, their relative abundances, how they use the site, key ecological relationships, and known and ongoing threats to those species with special status. A reasonably accurate characterization of the environmental setting can provide the basis for determining whether the site holds habitat value to wildlife, as well as a baseline against which to analyze potential project impacts. For these reasons, characterization of the environmental setting, including the project site's regional setting, is one of CEQA's essential analytical steps. Methods to achieve this first step typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases and local experts for documented occurrences of special-status species. In the case of the proposed project, these needed steps have been inadequate.

Environmental Setting informed by Field Surveys

To CEQA's primary objective to disclose potential environmental impacts of a proposed project, the analysis should be informed of which biological species are known to occur at the proposed project site, which special-status species are likely to occur, as well as the limitations of the survey effort directed to the site. Analysts need this information to characterize the environmental setting as a basis for opining on, or predicting, potential project impacts to biological resources.

Herein I discuss several types of surveys, which are common to environmental review, but which are often misunderstood and misapplied. A ***reconnaissance survey***, also often referred to as a general biological survey, is intended to (1) detect as many of the species as feasible during the time of the survey, (2) search for and map the locations of approximate boundaries of wetlands and coarse representations of vegetation cover, and (3) assess the likelihood of occurrences of special-status species. The latter objective is often referred to as habitat assessment. CDFW (2018) provides guidelines for reconnaissance surveys directed toward plant species, but there are no guidelines for reconnaissance-level wildlife surveys, other than the expected use of sound scientific methodology. A ***protocol-level survey*** is a survey guided by a written protocol, usually by a resource agency or professional group of biologists. Such surveys can be for various objectives, but in environmental review they are usually intended for detection surveys. ***Detection surveys*** are formulated by experts on a particular species to, at reasonable cost, give survey personnel the best chance at detecting members of a species if the species is indeed present. The additional purpose of detection surveys is to support absence determinations when the protocol was followed but the species was nevertheless not detected. Absence determinations made for special-status species are

supportable only if the results of detection surveys were negative, or when the site is outside the species' geographic range or clearly does not provide habitat.

Preconstruction surveys are take-avoidance surveys intended to be completed after reconnaissance surveys and detection surveys and just prior to construction ground-disturbance activities such as clearing and grubbing or grading. For some species, protocols for preconstruction surveys are included in mitigation guidelines. The preconstruction survey is a mitigation measure, and therefore not to be confused with other types of surveys. This type of survey will be discussed in the Mitigation section near the end of my comments.

Monk & Associates (2021) performed a reconnaissance survey of the SMP 39 project site on 5 November 2021 "to record biological resources and to assess the likelihood of resource agency regulated areas occurring on the project site," and "searching all habitats on the site and recording all plant and wildlife species observed," and "examination of the site to determine if there could be potential areas within the project site that would be regulated as waters of the United States and/or State." Monk & Associates (2023) performed two reconnaissance surveys of the SMP 40 project site on 10 June 2019 and 10 September 2021. The objectives of the surveys at SMP 40 were essentially the same as those for the survey of SMP 39. In all three of these surveys, Monk & Associates recorded all the species observed. A wetland delineation was alco completed at SMP 40.

For none of the above surveys was there reporting of what time the surveys began, or how long the surveys lasted. No checklist is shared of habitat elements that the biologists might have used during their survey to later crosscheck against documented habitats of each special-status species. No explanation is provided of whether or how animal behavior data or other evidence contributed to the biologist's assessment of the site for its importance to animal movement. It is therefore difficult to assess survey outcomes relative to survey effort and methods.

Monk & Associates (2021) detected 14 species of vertebrate wildlife on SMP 39, and Monk & Associates (2023) detected 22 species of vertebrate wildlife on SMP 40. In comparison, and even though I was unable to access either of the project sites, I detected 34 species in only 1.83 hours at SMP 39, and 29 species in only 2.22 hours at SMP 40. I also detected twice the number of special-status species at SMP 39 and 1.5 times the number of special-status species at SMP 40. Based on my surveys of the project sites, the existing environmental setting of each appears substantially different from the setting characterized by Monk & Associates (2021, 2023). Considering the differences between what Monk & Associates and what I found, I suggest that Monk & Associates must have either been distracted by other too many survey objectives, or lacked the skill needed to perform the surveys. The results of the Monk and Associates (2021, 2023) surveys have been misinterpreted in the reports, resulting in inaccurate characterizations of the existing environmental settings of SMP 39 and SMP 40.

Combining my survey results with those of Monk & Associates (2021, 2023), 38 species of vertebrate wildlife have been detected at SMP 39, and 44 species have been detected

at SMP 40. These combined results increase the documented number of species at SMP 39 by nearly 3-fold and they double the number of species at SMP 40. In other words, the combined survey outcomes support my modeling predictions of much larger numbers of species of wildlife making use of the project sites than can be demonstrated by one or two reconnaissance surveys. My modeling predicts at least 150 species of vertebrate wildlife make use of the two sites, and this prediction was based solely on diurnal visual-scan surveys, and not on live-trapping for small mammals and nocturnal surveys for nocturnally active animals. The wildlife communities of SMP 39 and SMP 40 are much richer than portrayed in the DEIR.

The DEIR (page 4.3-25) reports that "western burrowing owls have not been observed within SMP 39 or SMP 40." This is factually incorrect, as CNDDB includes a record of burrowing owl occurrence on SMP 39 (Monk & Associates 2023: Figure 4). Even if this reporting was correct, it would still qualify as pseudoscientific. The appropriate surveys for detecting burrowing owls are detailed in the survey guidelines of CDFW (2012). Lack of detections of burrowing owls during reconnaissance surveys would be meaningful only after completion of many reconnaissance surveys at the appropriate time of year and by qualified biologists. Considering that ground squirrels occur in abundance on SMP 39 and SMP 40, and considering that one of California's most significant populations of burrowing owls occurs within the nearby Altamont Pass (Smallwood et al. 2013), and considering that the appropriate detection surveys have not been completed at SMP 39 and SMP 40, it would be prudent to assume that burrowing owls occur on the project sites.

Regarding tricolored blackbird, the DEIR (page 4.3-26) reports that "the species has not been observed near SMP 39 in nearly 40 years." This is factually incorrect, as eBird includes a 2003 record of tricolored blackbird occurrence only 300 m north of SMP 39. The DEIR also reports that tricolored blackbird would not occur on SMP 9 because "aquatic habitat does not exist within SMP 39." But this is also factually incorrect. I have many times recorded tricolored blackbird occurrences on grasslands of the Altamont Pass far from bodies of water (Photos 19 and 20). Grassland environments is where tricolored blackbirds do most of their foraging in Alameda County, and it is where they sometimes nest within the Altamont Pass (Photo 20).

The DEIR reports that loggerhead shrikes do not occur on SMP 39. But again, the DEIR is factually inaccurate. I observed a loggerhead shrike on SMP 39 (Photo 21), which as it turned out, was near where a loggerhead shrike sighting was also reported to eBird in 2018. Loggerhead shrike does occur on SMP 39, as well as on SMP 40.

The DEIR reports that SMP 39 and SMP 40 contains potential habitat of raptors. However, the word "potential" insinuates uncertainty remains on the question of whether the sites provide raptor habitat. Of course, they do. Those portions of the environment used by raptors are considered raptor habitat. Between my surveys and those of Monk & Associates, and including CNDDB and eBird records, the following raptors have been seen on SMP 39 and SMP 40: turkey vulture, northern harrier, white-tailed kite, red-tailed hawk, ferruginous hawk, Cooper's hawk, American kestrel, merlin,

and burrowing owl. There should be no ambiguity around the question of whether raptor habitat occurs on SMP 39 and SMP 40; raptor habitat is present.

Photos 19 and 20. *Top, tricolored blackbirds forage on grassland far from aquatic environments, and bottom, they breed on rapeseed and thistle in the Altamont Pass Wind Resource Area.*

Photo 21. *Loggerhead shrike on the SMP 39 portion of the project site, 29 November 2023.*

Reconnaissance surveys for wildlife are not designed to detect special-status species. Special-status species can be detected during such surveys, as has been the case for 10 special-status species at the project site, but these surveys are not formulated to detect them, nor are there minimum standards to be met in these surveys to support absence determinations. For the latter purpose, protocol-level detection surveys have been formulated by species experts. Monk & Associates (2021, 2023) did not perform any detection surveys. Based on Monk & Associates (2021, 2023), the DEIR's characterization of the existing environmental setting is therefore incomplete and inaccurate.

The same is true for special-status species of plants. According to the DEIR (page 4.3-25), "special-status plants have not been observed during several surveys of the project sites conducted during various months over the years." However, this reporting is misleading, because only one of the several surveys was conducted during the plant blooming season. Monk and Associates (2021, 2023) did not meet the minimum standards of CDFW's (2018) plant survey guidelines.

Environmental Setting informed by Desktop Review

The purpose of literature and database review and of consulting with local experts is to inform the field survey, and to augment interpretation of its outcome. Analysts need this information to identify which species are known to have occurred at or near the project site, and to identify which other special-status species could conceivably occur at the site due to geographic range overlap and migration flight paths.

Monk & Associates (2021) did not reportedly review eBird (https://eBird.org) or iNaturalist (https://www.inaturalist.org) for documented occurrence records at or near the project site. Instead, Monk & Associates (2021, 2023) queried the California Natural Diversity Data Base (CNDDB) for documented occurrences of special-status species within the three miles of the project sites. By taking this approach, Monk & Associates (2021, 2023) and the DEIR screen out many special-status species from further consideration in the characterization of the wildlife community as part of the existing environmental setting. CNDDB is not designed to support absence determinations or to screen out species from characterization of a site's wildlife community. As noted by CNDDB, "*The CNDDB is a positive sighting database. It does not predict where something may be found. We map occurrences only where we have documentation that the species was found at the site. There are many areas of the state where no surveys have been conducted and therefore there is nothing on the map. That does not mean that there are no special status species present*." Monk & Associates (2021, 2023) and the DEIR misuse CNDDB.

According to Monk & Associates (2021:6), "No special-status animal records have ever been mapped on the project site." The word "ever" adds emphasis to the finding. However, by implication, Monk & Associates (2021) misrepresents CNDDB as a database with uniform representation of California properties, which is far from the case. CNDDB relies entirely on volunteer reporting from biologists who were allowed access to whatever properties they report from. Many properties have never been surveyed by biologists. Many properties have been surveyed, but the survey outcomes never reported to CNDDB. Many properties have been surveyed multiple times, but not all survey outcomes reported to CNDDB. Furthermore, CNDDB is interested only in the findings of special-status species, which means that species more recently assigned special status will have been reported many fewer times to CNDDB than were species assigned special status since the inception of CNDDB. The lack of many CNDDB records for species recently assigned special status had nothing to do with whether the species' geographic ranges overlapped the project site, but rather more to do with the brief time for records to have accumulated since the species were assigned special status. And because negative findings are not reported to CNDDB, CNDDB cannot provide the basis for estimating occurrence likelihoods, either.

In my assessment based on database reviews and site visits, 128 special-status species of wildlife are known to occur near enough to the site (SMP 38, SMP 39, SMP 40) to warrant analysis of occurrence potential (Table 2). Of these 128 species, 19 (15%) were recorded on the project site, and another 35 (27%) species have been documented within 1.5 miles of the site ('Very close'), another 13 (10%) within 1.5 and 4 miles

('Nearby'), and another 57 (45%) within 4 to 30 miles ('In region'). More than half (52%) of the species in Table 2 have been reportedly seen within 4 miles of the project site. The site therefore supports multiple special-status species of wildlife and carries the potential for supporting many more special-status species of wildlife based on proximity of recorded occurrences. The site is far richer in special-status species than is characterized in the DEIR.

Whereas Monk & Associates (2021, 2023) reportedly queried CNDDB for occurrence records within three miles of the project sites, the DEIR analyzes the occurrence likelihoods of only 6 (<5%) of the species in Table 2. That only 6 special-status species were identified from occurrence records within 3 miles strains credulity. As noted above, using eBird and iNaturalist, I found records of 54 special-status species of wildlife within only 1.5 miles of the project sites, and 67 within 4 miles of the sites.

Of the 6 species included in Monk & Associates (2021, 2023) analyses of occurrence likelihoods, the DEIR concludes that 4 have no chance of occurrence, 1 has low to no chance, and 1 has low to moderate chance of occurrence. Except for species whose habitat is compellingly absent from the site, absence determinations are inappropriate based on the evidence gathered by Monk & Associates (2021, 2023). Absence determinations are supportable only after species-specific protocol-level detection surveys have been completed to the standards of the protocols, and the species were nevertheless not detected. No such surveys have been completed. It is inappropriate to conclude that a species is absent simply by looking at a site, and it is especially inappropriate to do so for 125 species of wildlife. Important findings of Monk & Associates (2021, 2023) and the DEIR are not supportable.

Of the special-status species that Monk & Associates (2021, 2023)) claims to be absent from one or both of the project sites, two – burrowing owl and loggerhead shrike – have been seen where they were reported to be absent. Occurrence records of another 2 supposedly absent special-status species have been reported within only 1.5 miles of the site, and another has been reported within 1.5 and 4 miles of the project site. Important findings of Monk & Associates (2021, 2023) and the DEIR are not supportable.

Of the 122 special-status species in Table 2, but which the DEIR does not analyze for occurrence potential, some are unlikely to occur, whereas many *are* likely to occur. With ground squirrels known to be present on SMP 39 and SMP 40, there is reason to expect the occurrences of American badger, ferruginous hawk, bald eagle and golden eagle. I regularly observed these species in the Altamont Pass Wind Resource Areas while I performed various studies there from 1999 through 2019. Golden eagles, I continue to record both in the Altamont Pass and over and on the project sites (Figure 3). Of the 45 golden eagles that Douglas Bell captured and fit with GPS telemetry backpacks since 2013, 11 have flown to or perched in the areas of the project sites (Figure 3).

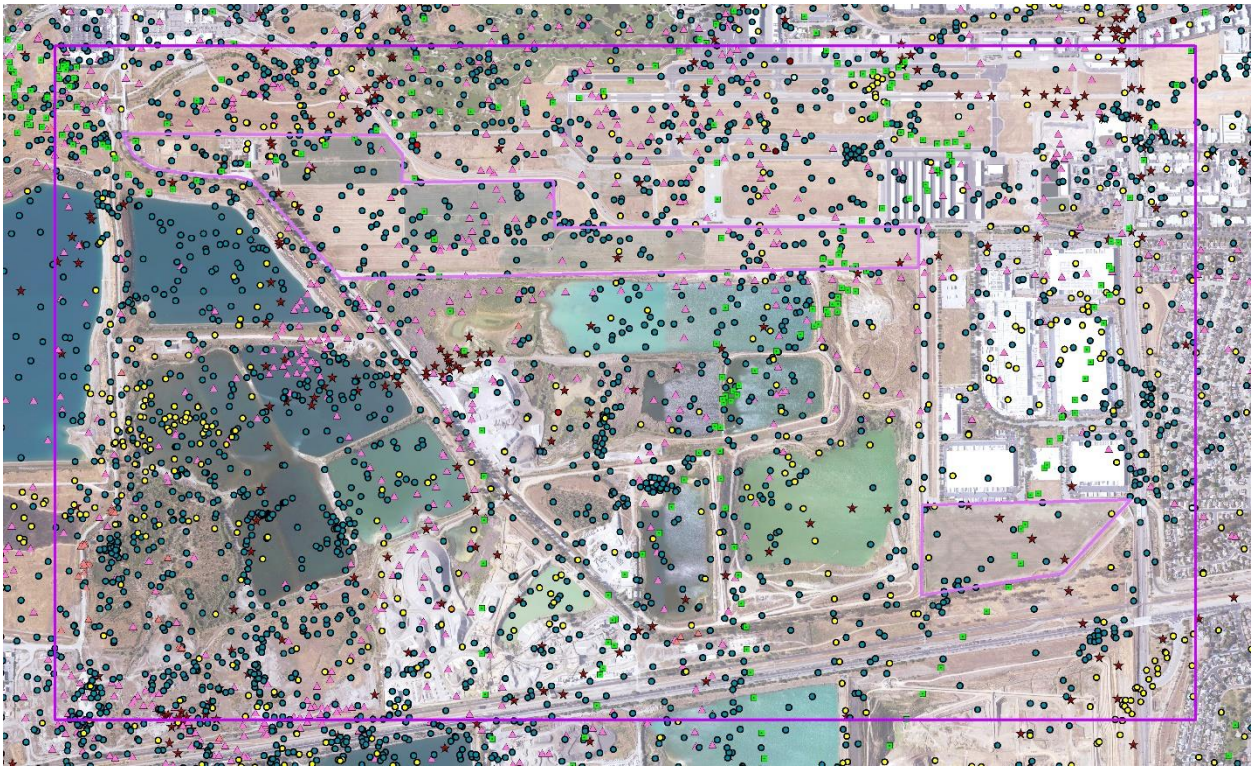


Figure 3. *GPS telemetry positions (N = 3,478) of 11 golden eagles from 2014 through 2023, each distinct color-symbol combination representative of one golden eagle. Many of the positions are on SMP 38, SMP 39, and SMP 40. Many of the positions are of flying golden eagles, and some are of perched golden eagles.*

Considering the inaccuracies of the DEIR's characterization of the existing environmental setting, the reasonable course of action would be to withdraw the current draft EUIR and prepare a new one to appropriately characterize the existing environmental setting. The public needs to understand the nature of the sensitive biological assets that exist on the project sites.

Table 2. *Occurrence likelihoods of special-status bird species at or near the proposed project site, according to eBird/iNaturalist records (https://eBird.org, https://www.inaturalist.org) and on-site survey findings, where 'Very close' indicates within 1.5 miles of the site, "nearby" indicates within 1.5 and 4 miles, and "in region" indicates within 4 and 30 miles, and 'in range' means the species' geographic range overlaps the site. Entries in bold font indicate those species I detected during my reconnaissance surveys.*

Common name	***Species name***	**Status[1]**	**DEIR occurrence potential**	**Data base records, Site visits**
Longhorn fairy shrimp	*Branchinecta longiantenna*	FE		In region
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT		In region
Vernal pool tadpole shrimp	*Lepidurus packardi*	FE		In region
Monarch	*Danaus plexippus*	FC		Very close
Crotch's bumble bee	*Bombus crotchii*	CCE		In region
California tiger salamander	*Ambystoma californiense*	FT, CT, WL	None	Nearby
Foothill yellow-legged frog	*Rana boylii*	CT, SSC		In region
California red-legged frog	*Rana draytonii*	FT, SSC	None	Nearby
Western pond turtle	*Emys marmorata*	SSC	None	Very close
Blainville's horned lizard	*Phrynosoma blainvillii*	SSC		In region
Northern California legless lizard	*Anniella pulchra*	SSC		In region
California glossy snake	*Arizona elegans occidentalis*	SSC		In region
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	SSC		In region
Alameda whipsnake	*Coluber lateralis euryxanthus*	FT, CT		In region
Brant	*Branta bernicla*	SSC2		In region
Cackling goose (Aleutian)	*Branta hutchinsii leucopareia*	WL		**On site**
Redhead	*Aythya americana*	SSC2		Very close
Harlequin duck	*Histrionicus histrionicus*	SSC2		In region
Barrow's goldeneye	*Bucephala islandica*	SSC		Very close
Western grebe	*Aechmophorus occidentalis*	BCC		Very close
Clark's grebe	*Aechmophorus clarkii*	BCC		Very close
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT, CE, BCC		In region
Black swift	*Cypseloides niger*	SSC3, BCC		In region
Vaux's swift	*Chaetura vauxi*	SSC2, BCC		Very close
Costa's hummingbird	*Calypte costae*	BCC		In region
Rufous hummingbird	*Selasphorus rufus*	BCC		Very close

Common name	***Species name***	**Status[1]**	**DEIR occurrence potential**	**Data base records, Site visits**
Allen's hummingbird	*Selasphorus sasin*	BCC		Very close
Ridgway's rail (San Francisco Bay)	*Rallus obsoletus obsoletus*			In region
Yellow rail				In region
Lesser sandhill crane	*Antigone canadensis canadensis*	SSC3		In region
Greater sandhill crane	*Antigone canadensis tabida*	CT, FP		In region
American avocet[4]	*Recurvirostra americana*	BCC		Very close
Mountain plover	*Charadrius montanus*	SSC2, BCC		In region
Snowy plover	*Charadrius nivosus*	BCC		In region
Western snowy plover	*Charadrius nivosus nivosus*	FT, SSC, BCC		In region
Whimbrel[4]	*Numenius phaeopus*	BCC		In region
Long-billed curlew	*Numenius americanus*	WL		Very close
Marbled godwit	*Limosa fedoa*	BCC		Very close
Red knot (Pacific)	*Calidris canutus*	BCC		Very close
Short-billed dowitcher	*Limnodromus griseus*	BCC		Nearby
Willet	*Tringa semipalmata*	BCC		Very close
Laughing gull	*Leucophaeus atricilla*	WL		In region
Heermann's gull	*Larus heermanni*	BCC		In region
Western gull	*Larus occidentalis*	BCC		Very close
California gull	*Larus californicus*	BCC, WL		**On site**
California least tern	*Sternula antillarum browni*	FE, CE, FP		In region
Black tern	*Chlidonias niger*	SSC2, BCC		In region
Elegant tern	*Thalasseus elegans*	BCC, WL		Nearby
Black skimmer	*Rynchops niger*	BCC, SSC3		In region
Common loon	*Gavia immer*	SSC		Very close
Brandt's cormorant	*Urile penicillatus*	BCC		Nearby
Double-crested cormorant	*Phalacrocorax auritus*	WL		**On site**
American white pelican	*Pelacanus erythrorhynchos*	SSC1, BCC		Very close
California brown pelican	*Pelecanus occidentalis californicus*	FP		In region
Least bittern	*Ixobrychus exilis*	SSC2		In region

Common name	***Species name***	**Status[1]**	**DEIR occurrence potential**	**Data base records, Site visits**
White-faced ibis	*Plegadis chihi*	WL		Nearby
Turkey vulture	*Cathartes aura*	BOP		**On site**
Osprey	*Pandion haliaetus*	WL, BOP		Very close
White-tailed kite	*Elanus luecurus*	CFP, BOP		On site
Golden eagle	*Aquila chrysaetos*	BGEPA, CFP, BOP, WL		On site
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP		**On site**
Sharp-shinned hawk	*Accipiter striatus*	WL, BOP		Very close
Cooper's hawk	*Accipiter cooperii*	WL, BOP		**On site**
American goshawk	*Accipiter atricapillus*	SSC2, BOP		In region
Bald eagle	*Haliaeetus leucocephalus*	CE, BGEPA		Very close
Red-shouldered hawk	*Buteo lineatus*	BOP		Very close
Swainson's hawk	*Buteo swainsoni*	CT, BOP		Very close
Red-tailed hawk	*Buteo jamaicensis*	BOP		**On site**
Ferruginous hawk	*Buteo regalis*	WL, BOP		On site
Rough-legged hawk	*Buteo lagopus*	BOP		Nearby
Barn owl	*Tyto alba*	BOP		Very close
Western screech-owl	*Megascops kennicotti*	BOP		Very close
Great horned owl	*Bubo virginianus*	BOP		Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2, BOP	Not likely	On site
Long-eared owl	*Asio otus*	BCC, SSC3, BOP		In region
Short-eared owl	*Asia flammeus*	BCC, SSC3, BOP		In region
Lewis's woodpecker	*Melanerpes lewis*	BCC		Very close
Nuttall's woodpecker	*Picoides nuttallii*	BCC		On site
American kestrel	*Falco sparverius*	BOP		**On site**
Merlin	*Falco columbarius*	WL, BOP		On site
Peregrine falcon	*Falco peregrinus*	BOP		Very close
Prairie falcon	*Falco mexicanus*	WL, BOP		Very close
Olive-sided flycatcher	*Contopus cooperi*	BCC, SSC2		Very close
Willow flycatcher	*Empidonax trailii*	CE		Very close

Common name	***Species name***	**Status[1]**	**DEIR occurrence potential**	**Data base records, Site visits**
Vermilion flycatcher	*Pyrocephalus rubinus*	SSC2		Nearby
Loggerhead shrike	*Lanius ludovicianus*	SSC2	Low to moderate	**On site**
Yellow-billed magpie	*Pica nuttalli*	BCC		Very close
Oak titmouse	*Baeolophus inornatus*	BCC		On site
California horned lark	*Eremophila alpestris actia*	WL		**On site**
Bank swallow	*Riparia riparia*	CT		In region
Purple martin	*Progne subis*	SSC2		In region
Wrentit	*Chamaea fasciata*	BCC		Very close
California thrasher	*Toxostoma redivivum*	BCC		Very close
Cassin's finch	*Haemorhous cassinii*	BCC		In region
Lawrence's goldfinch	*Spinus lawrencei*	BCC		**On site**
Grasshopper sparrow	*Ammodramus savannarum*	SSC2		Nearby
Alameda song sparrow	*Melospiza melodia pusillula*	BCC, SSC2		In region
Black-chinned sparrow	*Spizella atrogularis*	BCC		In region
Gray-headed junco	*Junco hyemalis caniceps*	WL		In region
Bell's sparrow	*Amphispiza b. belli*	WL		In region
Yellow-breasted chat	*Icteria virens*	SSC3		Nearby
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3		Nearby
Bullock's oriole	*Icterus bullockii*	BCC		On site
Tricolored blackbird	*Agelaius tricolor*	CT, BCC, SSC1	Low to none	Very close
Lucy's warbler	*Leiothlypis luciae*	SSC3, BCC		In region
Virginia's warbler	*Leiothlypis virginiae*	WL, BCC		In region
Yellow warbler	*Setophaga petechia*	SSC2		Very close
Summer tanager	*Piranga rubra*	SSC1		In region
Pallid bat	*Antrozous pallidus*	SSC, WBWG:H		In region
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG:H		In region
Canyon bat	*Parastrellus hesperus*	WBWG:L		In region
Big brown bat	*Episticus fuscus*	WBWG:L		In region
Silver-haired bat	*Lasionycteris noctivagans*	WBWG:M		In region
Western red bat	*Lasiurus blossevillii*	SSC, WBWG:H		In region

Common name	***Species name***	**Status[1]**	**DEIR occurrence potential**	**Data base records, Site visits**
Hoary bat	*Lasiurus cinereus*	WBWG:M		In region
Western small-footed myotis	*Myotis cililabrum*	WBWG:M		In range
Miller's myotis	*Myotis evotis*	WBWG:M		In region
Little brown myotis	*Myotis lucifugus*	WBWG:M		In region
Fringed myotis	*Myotis thysanodes*	WBWG:H		In range
Long-legged myotis	*Myotis volans*	WBWG:H		In range
Yuma myotis	*Myotis yumanensis*	WBWG:LM		In region
California myotis	*Myotis californicus*	WBWG:L		In region
Western mastiff bat	*Eumops perotis*	SSC, WBWG:H		In range
Mexican free-tailed bat	*Tadarida brasiliensis*	WBWG:L		In region
San Francisco dusky-footed woodrat	*Neotoma fuscipes annectens*	SSC		In region
Ringtail	*Bassariscus astutus*	CFP		In region
American badger	*Taxidea taxus*	SSC		Nearby
Mountain lion	*Puma concolor*	CCT		Nearby

[1] Listed as FC, FT or FE = federal candidate, threatened or endangered, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, CCT, CCE, CT or CE = California Candidate threatened or endangered, or California threatened or endangered, CFP = California Fully Protected (California Fish and Game Code 3511), SSC = California Species of Special Concern, SSC1, SSC2 and SSC3 = Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), WL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (CFG Code 3503.5), and WBWG = Western Bat Working Group with priority rankings, of low (L), moderate (M), and high (H).

POTENTIAL BIOLOGICAL IMPACTS

An impacts analysis should consider whether and how a proposed project would affect members of a species, larger demographic units of the species, the whole of a species, and ecological communities. The accuracy of this analysis depends on an accurate characterization of the existing environmental setting. In the case of the proposed project, the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, interference with wildlife movement, and wildlife-automobile collision mortality.

HABITAT LOSS

Habitat loss results in a reduced productive capacity of affected wildlife species, but the DEIR offers no prediction of this lost capacity for any of the wildlife species potentially affected. In the case of birds, two methods exist for estimating the loss of productive capacity that would be caused by the project. One method would involve surveys to count the number of bird nests and chicks produced. The alternative method would be to infer productive capacity from estimates of total nest density elsewhere.

Because the project is located within an area that has undergone severe habitat fragmentation, the habitat that remains in fragmented patches probably no longer supports its original productive capacity of wildlife (Smallwood 2015, Smallwood and Smallwood 2023). However, several studies have estimated total avian nest density at locations that had likewise been highly fragmented. Two study sites in grassland/wetland/woodland complexes within agricultural matrices had total bird nesting densities of 32.8 and 35.8 nests per acre (Young 1948, Yahner 1982) for an average 34.3 nests per acre. Assuming total nest density at the project site is about a third of that of the above-cited study sites due to the annual disking of the project site's interior areas, I predict SMP 38 (111.7 acres), SMP 39 (51.9 acres) and SMP 40 (41 acres) support 11.4 bird nests/acre/year. Based on this assumption, the combined projects, SMP 39 and SMP 40, on 92.9 acres would eliminate 1,059 nest sites, and assuming SMP 38 is also later developed, then the combined projects, SMP 38, SMP 39, and SMP 40, on 204.6 would eliminate 2,332 nest sites.

The loss of 1059 to 2,332 nest sites would easily qualify as a significant project impact that has not been quantitatively addressed in the DEIR. But the impact would not end with the immediate loss of nest sites as nest substrate is removed and foraging grounds graded in preparation for impervious surfaces. The reproductive capacity of the site would be lost. The average number of fledglings per nest in Young's (1948) study was 2.9. Assuming Young's (1948) study site typifies bird productivity, the project would prevent the production of 3,071 to 6,763 fledglings per year, depending on whether SMP 38 is developed. Assuming an average bird generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from an equation in Smallwood (2022): {(nests/year × chicks/nest × number of years) + (2 adults/nest × nests/year) × (number of years ÷ years/generation)} ÷ (number of years) = 3,495 to 7,696 birds per year denied to California, depending on whether SMP 38 is developed.

These losses of birds from California would be substantial, nearly equal to the annual loss of birds caused by wind turbine collision mortality in the nearby Altamont Pass Wind Resource Area (Adams Broadwell Joseph & Cardozo 8 January 2021 letter to Alameda County Planning Department regarding Comments on the Draft Subsequent Environmental Impact Report for the Mulqueeney Ranch Wind Repowering Project (SCH No. 2010082063), CUP Application No. PLN2019-00226). These losses would be highly significant.

INTERFERENCE WITH WILDLIFE MOVEMENT

One of CEQA's principal concerns regarding potential project impacts is whether a proposed project would interfere with wildlife movement in the region. Unfortunately, the DEIR's analysis of whether the project would interfere with wildlife movement in the region is flawed and misleading. According to the DEIR, "The project area does not fall within an Essential Habitat Connectivity area mapped by the CDFW." However, at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18486, the California Essential Habitat Connectivity Project specifically points out that it is not: "A California Department of Fish and Game or US Fish and Wildlife Service response to potential impacts to a habitat or species from a project subject to the California Environmental Quality Act (CEQA)," nor "Fine scale, with every important piece of habitat identified" nor ""Essential", meaning the only places of importance" nor "A solution by itself for how to provide necessary linkages for any given species of plant or animal… Linkage designs will vary depending on focal species chosen and the goal of providing connected habitat for a chosen species might be met several different ways" nor "The final word on connectivity for California." With analytical grid cells of 2,000 acres, the spatial grain of the California Essential Habitat Connectivity Project is much too coarse for the conclusion the DEIR draws from it.

The next flaw in the DEIR is in the argument that SMP 39 is cut off from open areas by well-trafficked roads, the airport, the gravel quarries, and therefore cannot function as a wildlife movement corridor. The same argument is made for SMP 40. On this point, the DEIR merely speculates, and offers no supporting evidence to its assertion. Monk & Associates (2021, 2023) report no survey methodology designed to determine whether wildlife rely on the site for movement in the region. They implemented no sampling regime nor a program of observation to record wildlife movement patterns. They failed to quantitatively or qualitatively analyze movement patterns of observed wildlife. Based on what is reported, Monk & Associates (2021, 2023) did not record or measure wildlife movement in any way. The conclusions of the DEIR regarding wildlife movement on the project site are speculative and conclusory.

On the other hand, the coyote I saw on site got there somehow, and so did the ground squirrels and pocket gophers, and so did all of the birds I saw on and over SMP 39. I observed hundreds if not thousands of gulls of multiple species flying in both easterly and westerly directions across SMP 38, SMP 39, and SMP 40. I observed Canada geese and Aleutian cackling geese flying to and from the quarry ponds and the project sites to forage. I saw a Cooper's hawk fly from the airport to SMP 39 to forage, crossing the well-trafficked road in about 2 seconds of flight time. Figure 3 illustrates that our telemetered

golden eagles from the Altamont Pass make frequent visits to the project site. That thousands of our golden eagle telemetry positions appear in the project area is consistent with the pattern that my co-investigators and I have noticed about golden eagle movement across California and beyond to other states and border nations, and that is that golden eagles carefully select open spaces as parts of their travel routes. The project area is important to golden eagle movement in the region, just as it is important to the 10 special-status species I observed on the project site, and to the 19 special-status species so far documented on the project site. Th evidence is overwhelming that the project site is important to wildlife movement in the region. Losing the open space of this site would be devastating to many species of wildlife, including to golden eagle.

Furthermore, whether the site includes or is within a wildlife movement corridor is not the only consideration when it comes to the standard CEQA Checklist question of whether the project would interfere with wildlife movement in the region. The primary phrase of the CEQA standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, a site such as the project site is critically important for wildlife movement because it composes an increasingly diminishing area of open space within a growing expanse of anthropogenic uses, forcing more species of volant wildlife to use the site for stopover and staging during migration, dispersal, and home range patrol (Warnock 2010, Taylor et al. 2011, Runge et al. 2014). The project, due to its elimination of at least 92.9 acres of open space, and more realistically 204.6 acres of open space, and due to its insertion of multiple new buildings into the aerospace currently used by birds, bats and butterflies. would cut wildlife off from one of the last remaining stopover and staging opportunities in the region, forcing volant wildlife to travel even farther between remaining stopover sites. This impact would be significant, and as the project is currently proposed, it would be unmitigated.

TRAFFIC IMPACTS TO WILDLIFE

Project-generated traffic would endanger wildlife that must, for various reasons, cross roads used by the project's traffic to get to and from the project site (Photos 22—26), including along roads far from the project footprint. Vehicle collisions have accounted for the deaths of many thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

The nearest study of traffic-caused wildlife mortality was performed only 11 miles away, along a 2.5-mile stretch of Vasco Road in Contra Costa County, California. Fatality searches in this study found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needs to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality

searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study I completed next to Vasco Road concurrent to the Mendelsohn et al. study (Brown et al. 2016). Brown et al.'s (2016) adjustment factors for carcass persistence resembled those of Santos et al. (2011), which were derived from carcasses placed along roads. Applying searcher detection rates from Brown et al. (2016), the adjusted total number of fatalities was estimated at 12,187 animals killed by traffic on the reach of road that was studied. This fatality number over 1.25 years and 2.5 miles of road translates to 3,900 wild animals per mile per year. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic generated by the project site would similarly result in local impacts on wildlife.

Photo 22. *A Gambel's quail dashes across a road* on *3 April 2021. Such road crossings are usually successful, but too often prove fatal to the animal. Photo by Noriko Smallwood.*

Photo 23. *California ground squirrel in the middle of an eastern Alameda County road on 13 March 2014.*

Photo 24. *Western Pacific rattlesnake on an eastern Alameda County road, 23 August 2011. Photo by Shawn Smallwood.*

Photo 25. *Mourning dove killed by vehicle on a California road. Photo by Noriko Smallwood, 21 June 2020.*

Photo 26 *Raccoon killed on Road 31 just east of Highway 505 in Solano County. Photo taken on 10 November 2018.*

For wildlife vulnerable to front-end collisions and crushing under tires, road mortality can be predicted from the study of Mendelsohn et al. (2009) as a basis, although it would be helpful to have the availability of more studies like that of Mendelsohn et al. (2009) at additional locations. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,900 animals killed per mile along a county road in Contra Costa County. Two percent of the estimated number of fatalities were birds, and the balance was composed of 34% mammals (many mice and pocket mice, but also ground squirrels, desert cottontails, striped skunks, American badgers, raccoons, and others), 52.3% amphibians (large numbers of California tiger salamanders and California red-legged frogs, but also Sierran treefrogs, western toads, arboreal salamanders, slender salamanders and others), and 11.7% reptiles (many western fence lizards, but also skinks, alligator lizards, and snakes of various species). VMT is useful for predicting wildlife mortality because I was able to quantify miles traveled along the studied reach of Vasco Road during the time period of the Mendelsohn et al. (2009), hence enabling a

rate of fatalities per VMT that can be projected to other sites, assuming similar collision fatality rates.

From October 2016 through December 2019, I maintained my own database of wildlife mortality I encountered on Vasco Road between Marsh Creek Road and Livermore, which encompassed the wildlife mortality study site of Mendelsohn et al. (2009). Table 3 includes the wildlife I found as fatalities, and it compares my crudely calculated ratio of observed fatalities per mile. From Table 3, it is apparent that mortality along the reach of road studied by Mendelsohn et al. (2009) was relatively low compared to the rest of Vasco Road: $^{19.178}/_{13.200} = 5{,}667$ fatalities per mile predicted for the 14.1 miles of Vasco Road that were not studies by Mendelsohn et al. (2009).

Table 3. *Fatalities I found along Vasco Road from October 2016 though December 2019, and along 14.1 miles of road that was not studied by Mendelsohn et al. (2009) and 2.5 miles that were studied.*

		Observed fatalities		Observed fatalities/mile	
Common name	**Scientific name**	**14.1 miles offsite**	**2.5- mile study site**	**14.1 miles offsite**	**2.5-mile study site**
Alligator lizard	*Elgaria multicarinata*	1		0.068	0.000
American badger	*Taxidea taxus*	3	2	0.205	0.800
American crow	*Corvus brachyrhynchos*	2		0.137	0.000
Barn owl	*Tyto alba*	21	2	1.438	0.800
Bird (Scrub-jay sized)		1		0.068	0.000
Blackbird	*Agelaius*	2		0.137	0.000
Black-tailed jackrabbit	*Lepus californicus*	2		0.137	0.000
Bobcat	*Felis rufus*	2		0.137	0.000
Buffelhead	*Bucephala albeola*	1		0.068	0.000
California kingsnake	*Lampropeltis getula californiae*		1	0.000	0.400
Common poorwill	*Phalaenoptilus nuttallii*	1		0.068	0.000
Coyote	*Canis latrans*	29	2	1.986	0.800
Desert cottontail	*Sylvilagus audubonii*	66	5	4.521	2.000
Gopher snake	*Pituophis c. catenifer*	15	2	1.027	0.800
Ground squirrel	*Otospermophilus beecheyi*	23	3	1.575	1.200
Gull	*Laridae*	1	1	0.068	0.400
Helmeted guineefowl	*Numida meleagris*	3		0.205	0.000
House cat	*Felis catus*	1		0.068	0.000
Kangaroo rat	*Dipodomys*	1		0.068	0.000
Large white bird		1		0.068	0.000
medium-sized bird			1	0.000	0.400

Common name	Scientific name	Observed fatalities		Observed fatalities/mile	
		14.1 miles offsite	2.5- mile study site	14.1 miles offsite	2.5-mile study site
medium-sized mammal		2		0.137	0.000
Mule deer	*Odocoileus hemionus*	5		0.342	0.000
Muskrat	*Ondatra zibethicus*	1		0.068	0.000
Northern harrier	*Circus hudsonicus*	1		0.068	0.000
Osprey	*Pandion haliaetus*	1		0.068	0.000
Pocket gopher	*Thomomys bottae*	1		0.068	0.000
Raccoon	*Procyon lotor*	25	5	1.712	2.000
Western Pacific rattlesnake	*Crotalus oreganus*	2		0.137	0.000
Red fox	*Vulpes vulpes*	1		0.068	0.000
Red-tailed hawk	*Buteo jamaicensis*	5		0.342	0.000
Red-winged blackbird	*Agelaius phoenecius*	1		0.068	0.000
Rock pigeon	*Columba livea*	1		0.068	0.000
Short-eared owl	*Asio flammeus*	1		0.068	0.000
Snake		1		0.068	0.000
Striped skunk	*Mephitis mephitis*	41	9	2.808	3.600
Turkey vulture	*Cathartes aura*	1		0.068	0.000
Virginia opossum	*Didelphis virginiana*	7		0.479	0.000
Western meadowlark	*Sturnella neglecta*	1		0.068	0.000
Wild turkey	*Meleagris gallopavo*	6		0.411	0.000
Total		280	33	19.178	13.200

Predicting project-generated traffic impacts to wildlife

The DEIR predicts the project would generate 8,622,395 annual VMT. During the Mendelsohn et al. (2009) study, 19,500 cars traveled Vasco Road daily, so the vehicle miles that contributed to my estimate of non-volant fatalities was 19,500 cars and trucks × 2.5 miles × 365 days/year × 1.25 years = 22,242,187.5 vehicle miles per 12,187 wildlife fatalities, or 1,825 vehicle miles per fatality. This rate divided into the predicted annual VMT, above, would predict 4,725 vertebrate wildlife fatalities per year. My analysis of data in Table 3 suggests that the project-caused mortality along local roadways would be even higher.

Based on my analysis, the project-generated traffic would cause substantial, significant impacts to wildlife. The DEIR does not address this potential impact, let alone propose to mitigate it. Mitigation measures to improve wildlife safety along roads are available and are feasible, and they need exploration for their suitability with the proposed project. Given the predicted level of project-generated, traffic-caused mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts. The DEIR should be withdrawn

from circulation and revised to appropriately analyze the potential impacts of project-generated automobile traffic on wildlife.

CUMULATIVE IMPACTS

The DEIR attempts to minimalize the project's contributions to cumulative impacts to biological resources by asserting that "ruderal herbaceous land is not considered sensitive wildlife habitat." However, CEQA does not require that the habitat that would be lost to a project be labeled as sensitive; no such standard exists.

The DEIR presents a flawed analysis of cumulative impacts, including to biological resources. The DEIR asserts that it "sets forth mitigation measures to ensure all potential project-specific impacts that would occur to biological resources are reduced to a less-than-significant level." And therefore, "the proposed project would not result in substantial adverse effects to biological resources protected by CEQA." The DEIR contrives the false standard that a given project impact is cumulatively considerable only when it has not been fully mitigated at the project level. The DEIR implies that cumulative impacts are really residual impacts left over by inadequate mitigation of project impacts. This notion of residual impacts being the source of cumulative impacts is inconsistent with CEQA's definition of cumulative effects. Individually mitigated projects do not negate the significance of cumulative impacts. If they did, then CEQA would not require a cumulative effects analysis. To summarize, the DEIR presents no cumulative effects analysis as defined in two ways by CEQA.

MITIGATION

Western Burrowing Owl

4.3-2(a) If project construction begins during the western burrowing owl nesting season (February 15 to August 31), a qualified biologist shall conduct targeted burrowing owl nest surveys within 14 days prior to construction activities using seven- to 20-foot transects. … The survey shall … follow CDFW guidelines outlined in the 2012 Staff Report on Burrowing Owl Mitigation.

The avian breeding season recognized by the CDFW is now 1 February through 15 September. The DEIR should be revised accordingly.

Whereas I concur that preconstruction, take-avoidance surveys should be completed, the DEIR falsely characterizes preconstruction surveys as detection surveys by insinuating that conducting preconstruction surveys without first having completed detection surveys would follow CDFW guidelines. Detection surveys are entirely different than preconstruction surveys, and are implemented to achieve a different set of objectives. Contrary to the DEIR's implication, preconstruction surveys are not designed to detect burrowing owls with anywhere close to the same likelihood as are protocol-level detection surveys that are designed for this purpose. It would be very easy for a preconstruction survey to fail to detect burrowing owls that are in fact present. Therefore, implementing a preconstruction survey as a surrogate for detection surveys would be reckless and would fail to meet the minimum standard of care for wildlife

protection. In any case, preconstruction surveys need to be implemented after completion of detection surveys per CDFW (2012).

Tricolored Blackbird

4.3-2(c) Prior to any ground disturbance on SMP 40, a qualified biologist shall conduct a preconstruction survey in all accessible areas identified as supporting potential tricolored blackbird nesting habitat. The survey shall document the current, and to the extent possible, historical presence or absence of nesting colonies of tricolored blackbird. …

Whereas I concur that preconstruction, take-avoidance surveys should be completed, a detection survey is needed first to inform the readers of the DEIR of whether and where tricolored blackbirds occur on or near the project sites. A detection survey would likely also improve the efficacy of the preconstruction survey.

Nesting Birds and Raptors (Including Loggerhead Shrike)

4.3-2(d) If project construction begins during the nesting season (February 1 to August 31), a qualified biologist shall conduct a nesting bird survey within 7 days prior to construction activities. … If migratory birds are identified nesting on or within the zone of influence, … A qualified biologist shall establish a temporary protective nest buffer around the nest(s). The nest buffer shall be staked with orange construction fencing. The buffer must be of sufficient size to protect the nesting site from construction-related disturbance and shall be established by a qualified ornithologist or biologist with extensive experience working with nesting birds near and on construction sites.

Typically, adequate nesting buffers are 75 feet from the nest site or nest tree dripline for small birds and up to 300 feet for sensitive nesting birds that include several raptor species known in the region of the project site but that are not expected to occur on the project site. Upon completion of nesting surveys, if nesting birds are identified on or within a zone of influence of the project site, a qualified ornithologist/biologist that frequently works with nesting birds shall prescribe adequate nesting buffers to protect the nesting birds from harm while the project is constructed.

First, the avian breeding season recognized by the CDFW is now 1 February through 15 September. The DEIR should be revised accordingly.

Second, whereas I concur that preconstruction, take-avoidance surveys should be completed, in my experience the majority of bird nests would not be found by biologists assigned to the survey. For instance, I surveyed for grassland nesters as part of an intensive survey effort that I performed from March through mid-August 2023 on a Central Valley site. I surveyed the site 30 times. I found that the nests of grassland birds are the most difficult to locate. Cavity nesters can more effectively defend their nests against predators, whereas ground nesters are highly vulnerable to predation, and thus the most cryptic of nesters. Ground nesters, which include bird species that occur at the project site, are highly adept at concealing their nests both physically and behaviorally. Based on my experience, it is highly likely that preconstruction survey would fail to find

any of the nests of ground-nesting birds that truly occur on the project site. The DEIR's implication that preconstruction survey would reduce potential impacts to nesting birds to less-than-significant is unsubstantiated by evidence in the DEIR.

The mitigation measure appears to be specifically directed toward loggerhead shrike, presumably because this special-status species was detected during a reconnaissance survey of SMP 40. Finding the nests of loggerhead shrikes is particularly difficult, as this species is expert at deceiving observers as to the whereabouts of their nests (Smallwood and Smallwood 2021). To adequately survey for nest sites of loggerhead shrike, many surveys are needed, and the survey methods need to include long sessions of visual-scans, preferably from blinds such as automobiles. Observers would need to be experienced in bird behavior, and capable of tracking the movements of individual loggerhead shrikes. A preconstruction survey for loggerhead shrike nest would be ineffective by having inexperienced biologists walk back and forth along transects.

Third, the mitigation language (second italicized paragraph above) allows a single individual to make a subjective decision, outside the public's view, to determine the buffer area for any given species. This measure lacks objective criteria, and is unenforceable.

Even assuming some or even all of the nests would be found and salvaged, this benefit to birds nesting on site would apply only to a single breeding season of nesters. The project would nevertheless eliminate the site's productive capacity to birds.

SMP 40 and Trail Connection Option 2
4.3-3(c) Prior to the commencement of ground-disturbing activities for SMP 40 or Trail Connection Option 2, … [Six minimization and mitigation measures follow, one of which is] *… the riparian corridor of Arroyo Mocho, disturbed areas shall be revegetated with native riparian plant species. Replacement of riparian trees to be removed shall be planted near the creek as feasible and/or adjacent to the existing limits of the riparian corridor to contribute to the existing riparian canopy. Riparian plantings shall be maintained for a minimum of 5 years to ensure that the canopy is enhanced and the understory restored.*

Trail Connection Option 2 – Undercrossing at Isabel Bridge
4.3-3(d) Prior to initiation of any groundbreaking activity associated with Trail Connection Option 2, … The project applicant shall ensure that the proposed project replaces, restores, or enhances on a "no net loss" basis (in accordance with the RWQCB) the acreage of all riparian habitat and waters of the State that would be removed, lost, and/or degraded due to project implementation by methods agreeable to the RWQCB and the City, as appropriate, depending on agency jurisdiction, and as determined during the Section 401 permitting processes. Methods include, but are not limited to implementation of a riparian enhancement planting plan and/or tree planting mitigation at a 1:1 ratio, or as otherwise prescribed by the RWQCB.

Trail Connection Option 2 – Undercrossing at Isabel Bridge

4.3-3(e) If it is determined that work below the OHWM cannot be avoided for Trail Connection Option 2, … Waters that would be lost or disturbed shall be restored, replaced, or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement, including the purchase of credits from a USACE approved mitigation bank at a 1:1 ratio, shall be at a location and by methods acceptable to the USACE.

I concur that all of the measures described above should be implemented if the project goes forward. However, these measure alone would be inadequate. Also needed is monitoring of wildlife that is integrated with thresholds of success and failure. If thresholds of failure are exceeded, then the City should be required to take additional steps to achieve success. To this end, an adequate performance bond should be provided by the applicant to the City.

RECOMMENDED MEASURES

Road Mortality: Compensatory mitigation is needed for the increased wildlife mortality that would be caused by bird-window collisions and the project-generated road traffic in the region. I suggest that this mitigation can be directed toward funding research to identify fatality patterns and effective impact reduction measures such as reduced speed limits and wildlife under-crossings or overcrossings of particularly dangerous road segments. Compensatory mitigation can also be provided in the form of donations to wildlife rehabilitation facilities (see below).

Fund Wildlife Rehabilitation Facilities: Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Many animals would likely be injured by collisions with automobiles traveling to and from the project's buildings.

Landscaping: If the project goes forward, California native plant landscaping (i.e., chaparral, grassland, and locally appropriate scrub plants) should be considered to be used as opposed to landscaping with lawn and exotic shrubs. Native plants offer more structure, cover, food resources, and nesting substrate for wildlife than landscaping with lawn. Native plant landscaping has been shown to increase the abundance of arthropods which act as importance sources of food for wildlife and are crucial for pollination and plant reproduction (Narango et al. 2017, Adams et al. 2020, Smallwood and Wood 2022.). Further, many endangered and threated insects require native host plants for reproduction and migration, e.g., monarch butterfly. Around the world, landscaping with native plants over exotic plants increases the abundance and diversity of birds, and is particularly valuable to native birds (Lerman and Warren 2011, Burghardt et al. 2008, Berthon et al. 2021, Smallwood and Wood 2022). Landscaping with native plants is a way to maintain or to bring back some of the natural habitat and lessen the footprint of urbanization by acting as interconnected patches of habitat for wildlife (Goddard et al. 2009, Tallamy 2020). Lastly, not only does native plant landscaping benefit wildlife, it requires less water and maintenance than traditional landscaping with lawn and hedges.

Thank you for your consideration,

Shawn Smallwood, Ph.D.

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December 12, 2023

Stephanie Papayanis, Esq.
Mitchel M. Tsai, Attorney at Law
139 South Hudson Avenue, Suite 200
Pasadena CA 91101
stephanie@mitchtsailaw.com

Subject: **City of Livermore SMP 38/SMP 39/SMP 40 Project**
Review of DEIR Noise Section & Appendices

Dear Stephanie:

We have completed a review of Section 4.6 (Noise), as well as Appendices J and K (Environmental Noise Assessments) of the Draft Environmental Impact Report for the City of Livermore SMP 38/SMP 39/SMP 40 Project, focusing on the adequacy of the noise impact analyses. Here are our findings:

OVERVIEW

Section 4.6 of the DEIR is based on environmental noise assessments prepared by Salter.

- Significance Standards

  The DEIR significance standards for noise and vibration impacts are based directly on Section XIII of the Environmental Checklist in Appendix G of the current CEQA Guidelines, which reads as follows:

  XIII. NOISE - Would the project result in:

  a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of the local general plan or noise ordinance, or applicable standards of other agencies?

  b) Generation of excessive groundborne vibration or groundborne noise levels?

  c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?

  Salter has proposed a 3 dBA increase in ambient noise levels as the threshold for a "substantial increase". We concur that this is a reasonable value for CEQA evaluation of this project.

- Operational Noise & Construction Vibration

  The analysis in Section 4.6 shows that noise impacts from operational noise (loading dock activity, HVAC, on-site vehicle movements) as well as vibration during on-site construction are less-than-significant. Generally, the analysis supporting this finding appears to be methodical and well done, consistent with current CEQA Guidelines, and we take no exception to it.

- Construction Noise Impacts

  Section 4.6 also includes an analysis of construction noise impacts on the nearest sensitive uses – i.e.: the single-family residential neighborhood to the east of the project sites. This analysis covers on-site construction activity for SMP 40 as well as the construction of off-site trail connections at three potential locations (each within 200-feet of the nearest residential use).

The impact of construction noise on the SMP 39 site is not covered in the DEIR.

For the off-site trail connection construction, the DEIR states that noise impacts are significant without mitigation and provides a list of mitigation measures (4.6-1) to reduce this impact to less-than-significant level. Generally, we agree with this finding and the proposed mitigation measures.

For on-site construction, the DEIR states that noise impacts will be less-than-significant. However, the analysis presented in the DEIR does not – in our opinion – adequately support this conclusion, for the reasons outlined below.

PROBLEMS WITH THE ON-SITE CONSTRUCTION NOISE IMPACT ANALYSIS

- <u>SMP 39 is Excluded</u>

  Construction noise from the SMP 39 site is not included in the analysis in Section 4.6 of the DEIR. An explanation for this omission is provided in the final paragraph on page 4.6-21, which reads in part:

  "Due to the substantial distance between SMP 39 and the sensitive noise receptors, it was anticipated that construction noise associated SMP 39 would be below the City of Livermore's exterior noise level threshold of 60 dBA DNL at the nearest sensitive receptor locations. Thus, construction noise levels for SMP 39 were not evaluated as part of the Environmental Noise Study for SMP 39."

  There are two problems with this explanation:

  First, CEQA requires an actual analysis to show whether a project impact is significant or less-than-significant. Simply "anticipating" that there will be no significant impact falls short of the standard required for a CEQA study.

  Second, the 60 dBA DNL exterior noise standard (which comes from the land-use compatibility table in the Noise Element of the City of Livermore General Plan) is only one of the applicable local regulations. The DEIR analysis should address all applicable regulations in both the General Plan and Municipal Code.

- <u>Analysis for SMP 40 is Incomplete</u>

  The noise impact analysis for construction on the SMP 40 site compares Salter's noise level predictions with instantaneous maximum noise level (Lmax) limits of 70 dBA during the day and 60 dBA at night, which are taken from Policy N-1.5.P3 of the City of Livermore General Plan.

  However, these Lmax noise limits are not the only local regulations that would apply to construction noise on the SMP 40 site.

  For example, the DEIR does not show how construction noise from SMP 40 would compare to Policy N-1.5.P2 of the General Plan, which prescribes the following noise limits, depending on the cumulative duration of the noise:

Daytime Noise Limit (7AM – 10PM)	Nighttime Noise Limit (10PM – 7AM)	Cumulative Duration
60 dBA	50 dBA	No more than 15-minutes in any hour.
65 dBA	55 dBA	No more than 5-minutes in any hour.
70 dBA	60 dBA	No more than 1-minute in any hour.

Similarly, the DEIR does not include an DNL analysis for construction noise from SMP 40 to show that it will be below the 60 dBA exterior noise standard taken from land-use compatibility table (Table 9-7) in the General Plan. This will be particularly important if any construction work is to occur at night.

- <u>There is an Error in the Calculations for SMP 40</u>

  Table 4.6-6 of the DEIR lists estimated Lmax noise levels for various pieces of construction equipment at a distance of 50-feet (these are standard reference values, taken from the FHWA Construction Noise Handbook) and extrapolates them to a distance of 884 feet.

  According to Table 4.6-6, the equipment noise levels received at a distance of 884 are 57 dBA lower than lower than those received at a distance of 50-feet. This is incorrect. According to the radiation equation for point sources (such as individual pieces of construction equipment) the reduction in noise level from 50-feet to 884 feet is:

  $10 \times LOG_{10}(884/50) = 25$ dBA

  So, the estimated Lmax noise levels provided in Table 4.6-6 are 32 dBA lower than they should be. Which means that noise from several of the pieces of equipment listed should be expected to produce a maximum level of noise at the nearest residences that is either right at the 60 dBA nighttime limit or, in the case of paving equipment, 4 dBA above it.

- <u>Construction on the East Side of the SMP 40 Site is Overlooked</u>

  The construction noise analysis in the DEIR for SMP 40 considers assumes receivers 884-feet away from the equipment – which is the distance between the location proposed for Building 2 and the nearest residences. However, there will be certain phases of construction – such as site preparation and paving/landscaping/site concrete – when noisy equipment could be operating closer than 884-feet from nearby residential uses.

  For example, the eastern corner of the SMP 40 site is within 600-feet of the nearest residential use. Received noise levels at a distance of 600-feet from the equipment would be 3 dBA higher than those received at 884-feet, which means that the expected noise level at the nearest residences when paving equipment is in use in the eastern corner of the site would be 67 dBA, Lmax and not 32 dBA, Lmax as reported in Table 4.6-6.

SUMMARY & RECOMMENDATIONS

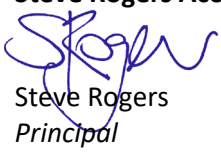
We find that, while much of the noise analysis in the DEIR has been done to the standard expected of a CEQA study, the evaluation of noise impacts during the construction phases is incomplete and contains a significant calculation error. We therefore recommend that the preparers be requested to revise/correct the Noise Section (4.6) of the DEIR as follows:

- Include SMP 39 in the on-site construction noise impact analysis. The analysis should take account of the anticipated number of pieces of equipment in use at any one time during each phase as well as estimated usage factors, so that construction noise impacts can be evaluated in the in the context of the City of Livermore General Plan DNL 60 dBA exterior noise standard (from Table 9-7) and the time-dependent noise limits in Policy N-1.5.P2, as well as the Lmax noise limits in Policy N-1.5.P3.
- For on-site construction on the SMP 40 site, the noise impact analysis should be expanded to take account of the anticipated number of pieces of equipment in use at any one time during each phase as well as estimated usage factors, so that construction noise impacts can be evaluated in the in the

context of the City of Livermore General Plan DNL 60 dBA exterior noise standard (from Table 9-7) and the time-dependent noise limits in Policy N-1.5.P2, as well as the Lmax noise limits in Policy N-1.5.P3.

- Table 4.6-6 should be revised to show the correct (25 dBA) reduction in point-source noise levels from 50-feet to 884-feet.
- Provide additional analysis for any construction activity on the SMP 40 site (such as site preparation, paving/landscaping) that could occur closer than 884-feet from the nearest residential use.

Yours sincerely,
Steve Rogers Acoustics, LLC



Steve Rogers
Principal

VIA E-MAIL

March 5, 2024
City of Livermore Planning Commission
City Council Chambers
1016 S. Livermore Avenue
Livermore, CA 94550
Em: planning@LivermoreCA.gov

RE: City of Livermore's SMP 39 and 40 Planning Commission Meeting

Dear Ashley Vera,

On behalf of "**Carpenters Local 713**", my Office is submitting these supplemental comments for the City of Livermore's ("**City**") Draft Environmental Impact Report ("**Draft EIR**" or "**DEIR**") and Final Environmental Impact Report ("**Final EIR**" or "**FEIR**") for the **March 5, 2024 Planning Commission Meeting** for the SMP 39 and 40 Project ("**Project**").

According to the Project's Notice of Availability ("**NOA**") of a Draft EIR Project Description:

> "On **SMP 38**, the proposed project includes a Sphere of Influence (SOI) Amendment to **include** SMP 38 within the **City of Livermore** SOI and **remove** it from the **City of Pleasanton's** SOI. The City of Livermore General Plan land use designation for SMP 38 would remain Limited Agriculture and Open Space/Sand and Gravel and the Alameda County zoning designation would remain Agriculture. **Development of SMP 38** is **not proposed**.
>
> For **SMP 39**, the proposed project would include development of a total of **up to six light industrial buildings**, consisting of **up to approximately 755,500 square feet** (sf) of new building space, and associated **internal roadways** and **other** improvements. **For SMP 40**, the proposed project would include development of **two industrial buildings** containing up to **759,275 sf of new building space** with

related **internal roadways** and **other** improvements. A number of approvals would be required for development of SMP 39 and SMP 40, including a **SOI Amendment for SMP 39**, **General Plan Amendment**, **Pre-zoning** and **Annexation**, **Zoning Map Amendment**/Planned Development, Vesting Tentative Subdivision **Maps**, a **Pre-Annexation Agreement**, and **Development Agreement**. A **Site Plan Design Review** entitlement is required for SMP 39 and SMP 40, which would include a review of the site plan, building, and landscape design; however, the entitlement is **only proposed for SMP 40 at this time**. A Site Plan Design Review entitlement will be required **at a later date** for the future development of **SMP 39**. In addition, the proposed project would include **annexation of four additional parcels** (APNs 904-10-2-3, -5, -7, and -8) located **east of SMP 40**. Development is **not proposed** on the additional parcels **as part** of the proposed project.

The project would include a **paved at-grade, on-site trail along the boundaries** of the SMP 40 site, consistent with the City's Active Transportation Plan. Specifically, the on-site trail would extend from the northeastern corner of the site, along the project site's eastern, southern, and western boundaries, before connecting to an existing off-site paved shared-use path at the northwestern corner of site, which extends along the west side of the Oaks Business Park to the north and connects to West Jack London Boulevard.

In addition, the project would include a **new off-site connection to the existing Arroyo Mocho Trail**, located on the east side of Isabel Avenue/SR 84. For the purposes of the Draft EIR analysis, three alternatives for the proposed off-site Isabel Avenue/SR 84 crossing to the existing Arroyo Mocho Trail are considered and evaluated in the Draft EIR, including the following, and described in more detail in the Draft EIR:

- Trail Connection Option 1 – **At-Grade** Crossing at **Discovery Drive**;
- Trail Connection Option 2 – **Undercrossing** at **Isabel** Bridge; and
- Trail Connection Option 3 – **Overcrossing** of **Isabel** Avenue/SR 84."

NOA of Draft EIR, pp. 1-2, emph. added.

The concurrently circulated Draft EIR contains the same project description. DEIR, pp. 1-2—1-4.

Carpenters Local 713 is a labor union representing union carpenters in Alameda County , and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects.

Local 713 members live, work, and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

Carpenters Local 713 expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

Carpenters Local 713 incorporates by reference all comments related to the Project or its CEQA review, including the Environmental Impact Report. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, Carpenters Local 713 requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

I. CEQA REQUIRES SUBSEQUENT OR SUPPLEMENTAL ENVIRONMENTAL REVIEW WHEN SUBSTANTIAL CHANGES OR NEW INFORMATION COMES TO LIGHT

Section 21092.1 of the California Public Resources Code requires that "[w]hen significant new information is added to an environmental impact report after notice has been given pursuant to Section 21092 … but prior to certification, the public agency shall give notice again pursuant to Section 21092, and consult again pursuant to Sections 21104 and 21153 before certifying the environmental impact report" in order to give the public a chance to review and comment upon the information. (CEQA Guidelines § 15088.5.)

Significant new information includes "changes in the project or environmental setting as well as additional data or other information" that "deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative)." (CEQA Guidelines § 15088.5(a).) Examples of significant new information requiring recirculation include "new significant environmental impacts from the project or from a new mitigation measure," "substantial increase in the severity of an environmental impact," "feasible project alternative or mitigation measure considerably different from others previously analyzed" as well as when "the draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded." (Id.)

An agency has an obligation to recirculate an environmental impact report for public notice and comment due to "significant new information" regardless of whether the agency opts to include it in a project's environmental impact report. (Cadiz Land Co. v. Rail Cycle (2000) 83 Cal.App.4th 74, 95 [finding that in light of a new expert report disclosing potentially significant impacts to groundwater supply "the EIR should have been revised and recirculated for purposes of informing the public and governmental agencies of the volume of groundwater at risk and to allow the public and governmental agencies to respond to such information."].) If significant new information was brought to the attention of an agency prior to certification, an agency is required to revise and recirculate that information as part of the environmental impact report.

The City's Supplemental Memorandum ("**Exhibit A**") identifies numerous substantial changes to the EIR. Most notably Noise Impacts section was dramatically changed based on updated Noise Studies for SMP 39 and 40 and newly determined significance thresholds were applied. These updated studies were only finalized one day ago and given to the public ***less than four hours*** before the Planning Commission hearing. Moreover, the updated studies and significance thresholds resulted in an entirely new

mitigation measure in the MMRP. (See **Exhibit A** at 695). Indeed, the most recent revision now predicts SMP 40 construction-related noise will exceed the thresholds established by the City. As such, the dramatic change in the findings of the EIR ***requires recirculation*** so that the public may provide its input.

II. THE FEIR IS IMPROPER AS IT DOES NOT INCLUDE ALL CHANGES TO THE DEIR

The FEIR cannot be certified by the Planning Commission as it does not include the numerous changes created by the Supplemental Memorandum released mere hours before the Planning Commission Hearing. Under CEQA Guidelines Section 15132, a FEIR shall include:

> "(a) The draft EIR or a revision of the draft.
> (b) Comments and recommendations received on the draft EIR either verbatim or in summary.
> (c) A list of persons, organizations, and public agencies commenting on the draft EIR.
> (d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
> (e) Any other information added by the Lead Agency."

As the FEIR has received ***two rounds of revisions*** since it was originally prepared in January 2024, the document proposed for certification is an inaccurate reflection of the FEIR. As such, the Planning Commission must not certify the FEIR until, at a minimum, the document reflects the most up-to-date version.

III. CONCLUSION

Based on the foregoing, the Planning Commission should deny the FEIR's certification, and the Environmental Impact Report should be revised and recirculated pursuant to CEQA, consistent with the comments and issues identified in this and previous comment letters.

Sincerely,

Grace Holbrook
Attorneys for Carpenters Local 713

Attached:

Supplemental Memorandum (Exhibit A).

LIVERMORE
CALIFORNIA

PLANNING COMMISSION STAFF REPORT **ITEM NO. 10.1**

DATE: March 5, 2024

TO: Chairperson and Members of the Planning Commission

FROM: Steve Riley, Acting Planning Manager

SUBJECT: Supplemental Materials received prior to the meeting.

RECOMMENDED ACTION

SUMMARY

These materials were posted online and made available to the public at the same time that they were distributed to the Planning Commission.

5.1 - Hearing to consider a request for an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Development Code Amendment, Vesting Tentative Parcel Map, Vesting Tentative Tract Map, Planned Development, and Site Plan Design Review for the SMP 39 and 40 Project to zone for and develop light industrial uses near the northwest part of the City.

Materials: Response to comments memorandum and errata, Conceptual site plan for SMP 39, Revised engineering consideration, Letters received in advance of the meeting, and Development agreements signed by the applicant.

DISCUSSION

ATTACHMENTS

1. Supplemental Materials

Prepared by: Michele Donley
Division Clerk

SMP 39/SMP 40 Project
Supplemental Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum

As mentioned in the memorandum entitled, "Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum", the City would be following up with a supplemental memorandum to provide responses to the "Attorneys for Carpenters Local 713" letter, dated February 14, 2024, which was received after the release of the Final Environmental Impact Report (EIR) for the SMP 39/SMP 40 Project (proposed project). This supplemental memorandum provides the responses to the above-referenced letter.

While CEQA does not require that written responses be provided for letters received after the close of the public review period, the comments are acknowledged by the City, and the City has chosen to prepare written responses to the comments for the decision-makers consideration in making an informed decision. Responses to the "Attorneys for Carpenters Local 713" comment letter, which is included as Attachment 1, are provided below. Where revisions to the EIR text are required in response to a comment, new text is double underlined and deleted text is ~~struck through~~.

The comments received did not identify any new significant impact, substantial increase in severity of a significant impact identified in the EIR, or any significant new information. Therefore, recirculation of the EIR is not required.

Response to Stephanie Papayanis, Attorneys for Carpenters Local 713
The majority of the comment letter, including the entirety of Comment I and Comment II(A) of the comment letter, is identical to the comment letter submitted by Attorneys for Carpenters Local 713 during the Draft EIR comment period. As such, with regard to Comment I and Comment II(A) included in the comment letter, please see Responses to Comments 5-3 and 5-5 included in the Final EIR.

The new concerns brought forth in the comment letter are limited to Comment II(B) and Comment II(C) related to biological resources and construction noise. Thus, responses to Comment II(B) and Comment II(C) are provided below.

Comment II(B) Related to Biological Resources
Responses to the commenter's concerns regarding biological resources are provided below, as informed by Monk & Associates (M&A), who prepared the project-specific Biological Resources Assessments (BRAs) used within the Draft EIR analysis. It should be noted that Comment II(B) is a summary of the comments provided in Exhibit D to the Attorneys for Carpenters Local 713 comment letter, which is a letter authored by Shawn Smallwood, PhD. As such, the following responses are organized based on the comments presented in Exhibit D of the Attorneys for Carpenters Local 713 comment letter.

Environmental Setting Informed by Field Surveys
Page 16 of the Exhibit D comment letter states: "The results of the Monk and Associates (2021, 2023) surveys have been misinterpreted in the reports, resulting in inaccurate characterizations of the existing environmental settings of SMP 39 and SMP 40." The commenter is referring to the fact that M&A biologists recorded fewer bird species on-site and flying overhead than the commenter did during a reconnaissance visit. The environmental setting or environmental

baseline of a project site is informed by much more than the number of birds and mammals one sees in a certain amount of time.

The CEQA Guidelines Section 15125(a) requires that the CEQA document prepared for a project discuss the "baseline" environmental conditions at and in the vicinity of the project sites. CEQA Guidelines Section 15125 (see also Section 15126.6(e)(2)) states the following regarding the environmental setting as it relates to baseline:

> (a) [the CEQA review document] must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to understanding the significant effects of the proposed project.

M&A conducted several surveys on each of the project sites. As explained in the SMP 39 BRA included as Appendix D to the Draft EIR, M&A survey work in the project area dates to the year 2000. However, because CEQA requires current baseline conditions, none of the plants or wildlife observed in the early 2000s were reported in the BRAs. The 2021 surveys are the baseline surveys that were conducted to record existing biological resources and to assess the likelihood of resource agency regulated areas on the project sites. The surveys involved searching all habitats on the sites and recording all plant and wildlife species observed. M&A cross-referenced the habitats found on the project sites against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species and if additional protocol level surveys would be necessary to assess potential impacts to special status species.

CEQA does not require an exhaustive list of all bird species that could occur on a project site, nor does CEQA require a discussion of what each species is doing at the time the species is observed. Rather, CEQA requires an analysis of potential impacts to special-status birds and/or nesting habitat for common birds that rise to the level of significance pursuant to CEQA as determined by an expert, based on database searches, field surveys, etc. M&A's BRAs provide that analysis and recommend pre-construction surveys to address potentially significant impacts. Overall, the BRAs meet the standards of care warranted under CEQA.

Habitat Loss

The commenter's estimate on the number of birds "denied to California" is primarily based on two studies. The commenter states that the two study sites have grassland/wetland/woodland complexes within agricultural matrices, and found total bird nesting densities of 32.8 and 35.8 nests per acre. The commenter uses one-third of such estimates for the project sites' calculation due to the annual discing that occurs on the project sites. However, the estimation is likely still an overestimate, as one study was conducted in a five-acre, undisturbed, unfragmented and preserved area within the over-500-acre University of Wisconsin Arboretum dedicated in 1934, adjacent to a 321-acre lake (Lake Wingra). The SMP 39 and SMP 40 project sites are not surrounded by hundreds of acres of preserved natural lands but rather the relatively small project sites are fragmented from natural areas by surrounding, existing development (busy roads, an airport, and active industrial uses).

The other study mentioned by the commenter was conducted within farmstead shelterbelts, or "man-made habitats consisting of parallel rows of trees and shrubs designed to protect farmsteads from damaging winds, drifting snow and blowing soil…" referred to as "wooded

islands." The study determined that the wooded islands are important for avifauna in regions of intensive agriculture and found many nests within the wooded region. The SMP 40 project site has a similar "wooded island," in that the wooded area that is a riparian corridor along Arroyo Mocho is being preserved within a riparian set back and will provide high-quality habitat for many nesting birds post-development. The preservation of Arroyo Mocho's riparian habitat was not considered in the commenter's calculations.

Further, the commenter's comparison of development of the proposed project to the high avian mortality rate by wind turbine collision in the Altamont Pass Wind Resource Area is not an appropriate comparison. The commenter is comparing 50-foot-tall buildings on the project sites to 430-foot-tall wind turbines with active, moving blades in a known avian migration zone; an area that supports the highest number of nesting Golden Eagles in the world.[1]

Regardless of the commenter's inappropriate comparison and overestimate of the number of birds "denied to California" due the loss of nesting habitat by the proposed projects, CEQA requires an analysis of potential impacts to special-status birds and/or nesting habitat for common birds that raise to the level of significance. Therefore, impacts to nesting birds were regarded as significant pursuant to CEQA in the Draft EIR. However, mitigation measures to protect special-status birds and all nesting birds have been prescribed in the Draft EIR (see Mitigation Measures 4.3-2[a] through 4.3-2[d] in the Draft EIR). The mitigation measures included therein reduce impacts to nesting birds to a less-than-significant level pursuant to the CEQA. Thus, the commenter's concerns about the projects' impacts to nesting birds have been sufficiently addressed.

Interference with Wildlife Movement
The commenter is correct that the Essential Habitat Connectivity Area mapped by the California Department of Fish and Wildlife (CDFW) is focused on connecting very large blocks of mostly protected natural lands. While the Draft EIR does state that the project sites are not located in this mapped area, that is only one sentence of the three-paragraph description under the Wildlife Movement Corridor section of the Draft EIR (see pages 4.3-14 to 4.3-15 of the Draft EIR). The comment implies that sufficient research and in-person assessments were not conducted accordingly, and that the determination that the project sites will not impact significant wildlife corridors was solely based on using the CDFW's Essential Habitat Connectivity Area map, which simply is not true.

For example, M&A conducted online research and project-specific field surveys to become informed about the project sites' habitats and the potential for any impacts to regional wildlife corridors based on development of the proposed projects. M&A recorded wildlife observed during site visits, in addition to extensively noting the habitat types and surrounding land uses during their visits and how the surrounding land uses would affect wildlife movement. As such, the commenter's statement that the conclusions of the Draft EIR regarding wildlife movement on the project site are speculative and conclusory is untrue.

Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors are extremely important habitats to preserve and are valuable for wildlife. While local wildlife may use the undeveloped sites in their current state, neither of the project sites currently provide a significant regional wildlife corridor that may be impacted by the proposed project. The project sites are regularly disced or disturbed for agriculture. For SMP 40, an

[1] National Audubon Society. *National Audubon Society Sues California County to Improve Bird Protections in Controversial Wind Energy Project.* Available at: https://www.audubon.org/news/national-audubon-society-sues-california-county-improve-bird-protections#:~:text=17%2C%202021)%2D%2DThe%20National,turbine%20facility%20at%20Altamont%20Pass%2C. Accessed February 2024.

industrial development, Oaks Business Park, is located to the north of the project site, east of the project site is Isabel Avenue, a heavily-trafficked road, south is an active railroad track and Stanley Boulevard, another heavily-trafficked road, and west of the project site are quarry ponds. SMP 39 is bordered by West Jack London Boulevard, a well-trafficked road, the Livermore Municipal Airport, the Oaks Business Park, and quarry ponds. The quarry ponds were excavated in uplands and, thus, are not associated with a creek or drainage, and have nearly vertical slopes, preventing wildlife from traversing the ponds easily or using the quarry area as a corridor. As mentioned in M&A's BRAs, both SMP 39 and SMP 40 are isolated from regional open spaces, and, as such, do not have regional wildlife corridor value for terrestrial mammals and contain minimal habitat that could be used by some migrating avian species.

The commenter states: "On the other hand, the coyote I saw on site got there somehow, and so did the ground squirrels and pocket gophers, and so did all of the birds I saw on and over SMP 39." One might infer from this statement that M&A's reports and the Draft EIR implied that wildlife do not use, or could not be found on the project sites, which is incorrect. Each of M&A's BRAs included a table of wildlife species observed on the project sites during site visits, which, as described in the BRAs, is not intended to be exhaustive or to describe the only species that could be found on the project sites. Rather, the focus was, as required by CEQA and as appropriate, on the assessment of biological resources with regard to suitable habitat and potential for the occurrence of any special-status species, as determined by a qualified biologist for the purposes of an impact analysis. Movement of a species through an area or an area's incidental use does not necessarily imply importance to the species, the characteristics of the habitat are more relevant.

For example, Figure 3 of the commenter's report shows the fly over and resting locations of Golden Eagles, which provides an example of how local wildlife may use the project sites as well as all surrounding areas, including properties completely developed with warehouses and surrounded by busy roads. However, while species such as the Golden Eagle may use the project site for foraging or resting on occasion, or may flyover, it is clear that the project sites are not the main sites that are relied upon by these large raptors for any of the above functions, or for nesting, as the existing trees are too small and in close proximity to disturbance.

The SMP 40 riparian area may provide significantly more suitable rest, foraging and nesting habitat for many bird species than the open and disturbed grassland does. However, as previously described, the riparian area on SMP 40 will be completely preserved within a riparian setback and will continue to connect local wildlife within the riparian corridor along the Arroyo Mocho.

The commenter also mentions that 19 special-status species so far have been documented on the project site, as further detailed in Table 1 of the commenter's report. However, the commenter's list includes species that do not meet the definition of "rare" pursuant to the CEQA. For example, Table 1 includes Red-tailed Hawk (*Buteo jamaicensis*), California Gull (*Laus californicus*), Double-crested Cormorant (*Phalacrocorax auritus*), Nuttall's Woodpecker (*Picoides nuttallii*), and Oak Titmouse (*Baeolophus inornatus*), which are designated as Birds of Prey (BOP), Birds of Conservation Concern (BCC) by U.S. Fish and Wildlife Service, and Taxa to Watch List. However, the aforementioned listings are not considered special-status under the California or Federal Endangered Species Acts (CESA and FESA), by other regulations, or by the scientific community pursuant to the CEQA. Nonetheless, it should be noted that these species, their nests, eggs and/or young are provided protection pursuant to other resource agency regulations such as the Migratory Bird Treaty Act (MTBA) and the California Fish and Game Code Sections 3503, 3503.5, 3511, and 3513C, which are both fully accounted for and discussed in M&A's BRAs and the Draft EIR.

In addition, the commenter does not specify which of the 19 species were observed during his site visit, or which were taken as observations from eBird. While many experienced birders may use eBird, anyone can report incidental bird sightings to eBird without any way to confirm the qualifications of the observer. As such, relying only on eBird data to say confidently that a special-status species is present on a property is not sufficient and would need to be confirmed by a qualified biologist. As mentioned by the commenter, several of the species sightings are birds flying over the project sites. As discussed in sections above, observing sensitive birds flying over a property, foraging over the site, or using the habitat on the sites during the non-nesting season does not warrant reporting to the California Natural Diversity Database (CNDDB), as such sightings are not of permanent breeding/nesting/larval development habitat (dependent on what type of animal it is) that warrant protection. The types of "incidental" sightings of common bird species do not necessarily translate into a "potentially significant biological impact" pursuant to CEQA Guidelines and regulations.

Further, while the project sites in their current state may be used by local wildlife, they provide very low value for foraging, resting or nesting, as the project sites are mainly comprised of non-native ruderal herbaceous habitats and are highly disturbed due to agricultural practices. The project sites are not one of the last remaining stopover and staging opportunities in the region, as stated by the commenter, as acres of undeveloped land similar to the project sites is located within the very immediate area, as well as dozens of local parks. The 80-acre Shadow Cliffs Regional Recreation Area is less than two miles from the project sites and the 160-acre Doolan Canyon Regional Preserve beyond provides more undeveloped land to the north. All of the aforementioned habitats in the region provide habitat for the species listed in the table of wildlife observed included in Exhibit D of the comment letter, and have far greater wildlife corridor habitat value than the project sites. The commenter's concerns about the loss of the ruderal habitats on-site should be assuaged by the fact that more trees and shrubs will be planted on the project sites post-development than are currently on site, which will provide additional stopover opportunities for birds.

Finally, as previously mentioned, the Arroyo Mocho runs along the southern project site boundary of SMP 40. Arroyo Mocho may serve as a local movement corridor for mammals, amphibians, and reptiles to move unobtrusively through the general geographic area. Animals moving along Arroyo Mocho could leave the Arroyo and enter the project site to move across the landscape. Such animals expected to migrate along the Arroyo and possibly enter the upland areas of the project site are common species such as coyote, raccoons, skunks, deer, and rodents, and would be able to navigate their way around SMP 40 even after the site was developed. The Arroyo Mocho would remain unchanged by the proposed project and as such, the wildlife corridor values of the channel would remain intact. Under all circumstances, any disruption to the very localized use of the project sites by common wildlife species would not be regarded as a potentially significant impact pursuant to CEQA.

Traffic Impacts to Wildlife

Common wildlife associated with humans and urban development such as Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*) and raccoon (*Procyon lotor*) are often involved in vehicle collisions. However, the aforementioned species and other common wildlife species, including Mourning Dove (*Zenaida macroura*) and northern pacific rattlesnake (*Crotalus oreganus*), are not considered special-status or rare. In addition, while roadkill is present in the vicinity of the project sites, as is the case at any area with road traffic, the approximation included in Exhibit D of the comment letter is likely an overestimate, as the numbers are based on another study that is not directly comparable to the project area. Vasco Road is the principal north-south route between eastern Alameda and Contra Costa Counties, traveled by approximately 22,000 vehicles per day. Increased traffic to the project sites on local roadways, Isabel Avenue and West

Jack London Boulevard, is not comparable to the heavily trafficked Vasco Road, which is a corridor in the middle of hundreds of acres of protected open space lands and significant wildlife habitat. By contrast, Stanley Boulevard and I-580, near the project sites, are already heavily trafficked roads in a developed region and the increase in vehicles associated with the project sites would not contribute significantly to the existing traffic volumes on these roads daily. Moreover, regulations that protect common wildlife species that could be killed by vehicular traffic do not exist. As such, vehicle collisions that result in the mortality of wildlife do not constitute a significant impact pursuant to CEQA.

Western Burrowing Owl Mitigation

The CDFW has not released an official statement that the avian breeding season has changed. In M&A's experience, when permits are acquired from the CDFW, the nesting season window can vary slightly. Some permits say February 1 through August 31, while others say February 15 through September 1. The variation in start and end dates could be based on geography, as different geographic regions have slightly different nesting windows. In fact, the CDFW acknowledges a certain amount of variation in the 2012 CDFW Staff Report on Burrowing Owl Mitigation, which states, "In California, the burrowing owl breeding season extends from 1 February to 31 August (Haug et al. 1993, Thompsen 1971) with some variances by geographic location and climatic conditions." Nonetheless, in response to the comment, Mitigation Measure 4.3-2(a) included in the Draft EIR is hereby revised as follows:

Western Burrowing Owl

4.3-2(a) *If project construction begins during the western burrowing owl nesting season (February 1~~5~~ to August 31), a qualified biologist shall conduct targeted burrowing owl nest surveys within 14 days prior to construction activities using seven- to 20-foot transects. A separate preconstruction survey shall be conducted for SMP 39 and SMP 40 (including the off-site trail connection area) if the components of the project are not constructed concurrently. The survey shall include the project site and all accessible areas within 500 feet of the project impact zone, and shall follow CDFW guidelines outlined in the 2012 Staff Report on Burrowing Owl Mitigation. The results of the survey shall be submitted to the City of Livermore Community Development Department within 30 days of the completed survey. The survey report shall be valid for one construction season.*

If western burrowing owls are not detected on-site during the survey, further mitigation shall not be required. If any western burrowing owls are detected on-site, pursuant to the CDFW's 2012 Staff Report on Burrowing Owl Mitigation, the following restricted activity dates and setback distances shall be implemented:

- *From April 1 through October 15, low disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests.*
- *From April 1 through August 15, medium disturbance activities shall have a 500-meter buffer from occupied nests. Medium disturbance activities can have a reduced buffer of 200 meters starting August 16 through October 15.*
- *From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests.*
- *Earth-moving activities or other disturbance shall not occur within the aforementioned buffer zones of occupied burrows*

unless monitoring of the nest site by a qualified biologist determines that the owls are acclimated to the disturbance and would not be disturbed by a smaller buffer. The buffer zones shall be fenced.

- *A qualified biologist shall delineate the extent of burrowing owl habitat on the site.*
- *Owls may be passively relocated from the project site between October 1 and February 1. Passive removal shall be conducted by a qualified biologist with demonstrated experience with passive relocation.*
- *Credits shall be purchased from a mitigation bank in coordination with CDFW and the City of Livermore to offset the project's habitat loss on the burrowing owl.*

A report detailing compliance with the provisions set forth herein shall be prepared by the qualified biologist and submitted for review and approval to the City of Livermore Community Development Department.

Further, M&A biologists have conducted several surveys, some of which are dated October 2000; March 11, 2002; May 11 and 20, 2002; June 14 and 25, 2002; September 2003, November 2013, June 10, 2019, November 2019, September 10, 2021, November 13, 2021, and June 15, 2022. The aforementioned surveys conducted in May and June were focused Burrowing Owl breeding season surveys conducted in accordance with the CDFW 1995 Staff Report protocol. Burrowing owl, or signs of burrowing owl, were not observed during any of the M&A surveys. Thus, based upon M&A's multiple surveys of the project site spanning multiple years, evidence suggests that burrowing owls have not nested on-site for the following reasons: (1) the grass grows very tall on SMP 40 in between discing activities, which does not allow ground nesting birds, such as the burrowing owl, an opportunity to detect aerial predators, which likely discourages them from nesting; (2) discing activities may disrupt nesting attempts.

Based on habitat assessments and past negative survey results, M&A believes that burrowing owls are unlikely to nest on-site. However, given that the burrowing owl is a mobile species, a mitigation measure for preconstruction surveys was provided in the Draft EIR to ensure that "take" of burrowing owls does not occur. The prescribed preconstruction surveys, consistent with "take avoidance surveys" outlined in the CDFW's Staff Report 2012, are sufficient and appropriate to detect nesting owls should the species be present on-site in light of the prior surveys' negative results, including a year of protocol-level breeding season surveys. Burrowing owls residing in topographically flat areas are typically easy to detect if surveys consist of walking transects using high-powered binoculars. As such, the mitigation measure included in the Draft EIR is sufficient to reduce any potential project impacts on burrowing owl to a less-than-significant level.

Tricolored Blackbird Mitigation

As stated above, M&A biologists have been on both project sites multiple times over the last 20 years. Tricolored blackbirds have not been observed on-site and on-site habitat for the species is marginal, as the sites are routinely disturbed, water is not present on SMP 39, and Arroyo Mocho at SMP 40 is typically dry during the middle to end of the nesting season. The tricolored blackbird prefers nesting near water. The preconstruction surveys proposed in the Draft EIR to determine if tricolored blackbird is nesting on-site are sufficient to detect the species' presence. The species can also be looked for during the burrowing owl surveys, which will take place at the same time as tricolored blackbird nesting season.

Nesting Bird and Raptor Mitigation
As discussed above, the CDFW has not released an official statement that the avian breeding season has changed. In M&A's experience when permits are acquired from the CDFW, the nesting season window can vary slightly, as different geographic regions have slightly different nesting windows.

In addition, with regard to nest detection, while grassland nesting birds are difficult to detect, M&A biologists are experienced in surveying for ground-nesting and short grass nesting birds and have had success finding nests in the past. Typically, if pedestrian walking transect surveys are conducted by two or more people walking closely together, nests will be found. Further, if experienced consulting biologists are hired to conduct the nesting bird surveys, the biologists will know the appropriate methods to survey for nesting passerine birds, including the Loggerhead Shrike, and raptors. The most suitable habitat for Loggerhead Shrike on the project sites is along SMP 40's riparian corridor, which will be preserved by the project. Many trees along the riparian corridor and south of the project site could serve as a blind for the observer to hide behind and watch bird behavior to determine if birds are nesting. Finally, the qualified biologist making the nesting buffer determination would provide a report to the City of Livermore and communication between the City of Livermore, the applicant's biologist, and the construction team would be ongoing throughout the construction period. The biologist will ensure that the buffer is maintained throughout construction to ensure that the nesting attempt is protected.

While development does remove potential bird nesting habitat, the project applicant is avoiding the riparian corridor on the SMP 40 project site, which is the most valuable nesting habitat on-site. Additionally, in accordance with City of Livermore General Plan Policy OSC-1.3 P1, as presented on page 4.3-21 of the Draft EIR, the proposed project is required to landscape with native vegetation.

Based on the above, changes to the Draft EIR mitigation for nesting birds and raptors are not warranted.

<u>Comment II(C) Related to Construction Noise</u>
As discussed on page 4.6-21 of the Draft EIR, due to the substantial distance between SMP 39 and the sensitive noise receptors, it was anticipated, based on the professional judgment of the project noise consultant, that construction noise associated with SMP 39 would be below the City of Livermore's exterior noise level threshold at the nearest sensitive receptor locations. In response to the comments regarding construction noise impacts associated with SMP 39, Salter, the project noise consultant who prepared the project-specific Environmental Noise Studies used in the Draft EIR analysis, estimated the construction noise levels associated with SMP 39 at the nearest noise sensitive receptor to the site (see Attachment 2). In addition, in response to the comments regarding construction noise impacts associated with SMP 40, Salter provided an updated analysis of construction noise associated with SMP 40 (see Attachment 3). Because construction is not permitted during nighttime hours (pursuant to Section 9.36.080 of the Livermore Municipal Code), the applicable noise level threshold for construction noise levels associated with SMP 39 and SMP 40 would be 70 dBA L_{max}, as established by the City of Livermore (see Draft EIR page 4.6-14 and General Plan Policy N-1.5 P3).

The commenter alleges that Table 9-7, Land Use Compatibility Guidelines for Exterior Noise, of the General Plan applies to construction noise; this is not correct. As stated in General Plan Policy N-1.1 P4, presented on page 4.6-8 of the Draft EIR, the City shall use the Land Use Compatibility Guidelines for Exterior Noise (measured in dBA CNEL or L_{dn}) contained in Table 9-7 (i.e., the DNL 60 dBA exterior noise level standard referenced in the comment letter) to direct the siting, design, and insulation of new development to reduce exposure to excessive noise. Construction

noise standards are established in General Plan Policies N-1.5 P2, P3, and P4, as presented on page 4.6-12 of the Draft EIR, which do not include a DNL standard. In particular, General Plan Policy N-1.5 P3 states that in order to allow for temporary construction, demolition or maintenance noise and other necessary short-term noise events, the stationary noise standards in Policy N-1.5.P1 shall not be exceeded within the receiving land use by more than 15 dBA for any period of time. General Plan Policy N-1.5.P1 requires that industrial and commercial uses be designed and operated so as to avoid the generation of noise effects on surrounding sensitive land uses from exceeding 55 dBA L_{50} during the hours of 7:00 AM to 10:00 PM and 45 dBA L_{50} during the hours of 10:00 PM to 7:00 AM. Thus, for analysis purposes of project construction noise within the Draft EIR, the threshold of significance for the maximum allowable construction noise level at a sensitive receptor is 70 dB L_{max} during daytime hours and 60 dB L_{max} during nighttime hours (i.e., 15 dB above the numerical criteria listed in P1). Consequently, the DNL 60 dBA exterior noise level standard included in the comment letter would not apply to the temporary, intermittent construction noise associated with either SMP 39 or SMP 40.

Based on the comments regarding construction noise impacts associated with SMP 39 and SMP 40, pages 4.6-21 through 4.6-24 of the Draft EIR are hereby revised as follows. Such revisions are also reflected in the Revised Environmental Noise Studies for SMP 39 and SMP 40, included as Attachment 2 and Attachment 3 to this memo. It should be noted that all revisions to pages 4.6-22 through 4.6-24 of the Draft EIR previously included in the Final EIR are also shown in ~~strikethrough~~ and <u>double underlined</u> text below.

> ~~Due to the substantial distance between SMP 39 and the sensitive noise receptors, it was anticipated that~~ <u>The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction. Table 4.6-6 shows maximum noise levels associated with each piece of construction equipment anticipated to be used during construction of SMP 39 at a reference level of 50 feet, as well as at 2,640 feet, which is the distance from Building 1 on the SMP 39 site to the nearest sensitive receptors (the residences located across Isabel Avenue to the east). Based on the project-specific construction schedule assumed in the air quality analysis conducted for SMP 39, Table 4.6-7 summarizes the anticipated construction equipment associated with each phase of project construction, and the relative sound levels at the nearest residential property (approximately 2,640 feet away), assuming that equipment is running simultaneously during each phase of construction. As shown in Table 4.6-7,</u> construction noise associated with SMP 39 <u>would range between 59 and 61 dBA L_{max},</u> ~~be~~ <u>which would be</u> below the City of Livermore's exterior noise level threshold of ~~60~~ <u>70</u> dBA ~~DNL~~ <u>L_{max}</u> at the nearest sensitive receptor locations. ~~Thus, construction noise levels for SMP 39 were not evaluated as part of the Environmental Noise Study prepared for SMP 39. Therefore, the following discussion focuses on SMP 40 and the off-site trail connections.~~

Table 4.6-6
Typical Construction Equipment Noise at SMP 39

Equipment	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 50 feet)	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 2,640 feet)
Aerial Lift	83	49
Air Compressors	81	47
Cement and Mortar Mixers	85	51
Concrete/Industrial Saws	76	42
Cranes	83	49
Drill Rig of Shoring Beams (Caisson Drilling)	85	51
Excavators	85	51
Forklifts	83	49
Generator Sets	81	47
Graders	85	51
Paving Equipment	89	55
Rollers	74	40
Rubber-Tired Dozers	85	51
Tractors/Welders/Backhoes	84	50
Welders	73	39

Source: Salter, 2024.

Table 4.6-7
Construction Equipment Noise Levels at Nearest Receptor – SMP 39

Offroad Equipment Type	Amount	Usage Hours	Resulting L_{max}
Grading			
Excavators	2	8	54
Graders	1	8	51
Rubber Tired Dozers	1	8	51
Scrapers	2	8	54
Tractors/ Loaders/ Backhoes	2	8	53
All Grading Equipment Running Simultaneously			**60**
Paving			
Pavers	2	8	58
Paving Equipment	2	8	58
Rollers	2	8	43
All Paving Equipment Running Simultaneously			**61**
Building Construction			
Cranes	1	7	49
Forklifts	3	8	54
Generator Sets	1	8	47
Tractors/ Loaders/ Backhoes	3	7	56
Welders	1	8	39
All Building Construction Equipment Running Simultaneously			**59**
Architectural Coating			
Air Compressors	1	8	47

Source: Salter, 2024.

~~The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction.~~ Table 4.6-~~6~~ 8 shows maximum noise levels associated with ~~typical~~ each piece of construction equipment anticipated to be used during construction of SMP 40 at a reference level of 50 feet, as well as at ~~884~~ 600 feet, which is the distance from the ~~proposed Building~~

~~2 on~~ northeast corner of the SMP 40 site to the nearest residences across Isabel Avenue/SR 84. Based on the project-specific construction schedule assumed in the air quality analysis conducted for SMP 40, Table 4.6-9 summarizes the anticipated construction equipment associated with each phase of project construction, and the relative sound levels at the nearest residential property (approximately 600 feet away), assuming that equipment is running simultaneously during each phase of construction.

Table 4.6-~~6~~ 8
Typical Construction Equipment Noise at SMP 40

Equipment	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 50 feet)	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at ~~884~~ 600 feet)
~~Demolition~~		
Concrete/Industrial Saw	76	~~19~~ 54
Excavators	85	~~28~~ 63
Rubber-Tired Dozer	85	~~28~~ 63
Tractor/Loader/Backhoe	84	~~27~~62
~~Site Preparation~~		
Grader	85	~~28~~ 63
~~Rubber-Tired Dozer~~	~~85~~	~~28~~
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~
~~Grading/Excavation~~		
Drill Rig for Shoring Beams (Caisson Drilling)	85	~~28~~ 63
~~Excavators~~	~~85~~	~~28~~
~~Rubber-Tired Dozer~~	~~85~~	~~28~~
~~Tractor/Loader/ Backhoe~~	~~84~~	~~27~~
~~Trenching~~		
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~
~~Excavators~~	~~85~~	~~28~~
~~Building Exterior Construction~~		
Crane	83	~~26~~ 61
Fork Lift	83	~~26~~ 61
Generator Sets	81	~~24~~ 59
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~
Welders	73	~~16~~ 51
~~Building Interior Construction/Architectural Coating~~		
Aerial Lift	83	~~26~~ 61
Air Compressors	81	~~24~~ 59
~~Paving/Landscaping/Site Concrete~~		
Cement and Mortar Mixers	85	~~28~~ 63
Paving Equipment	89	~~32~~ 67
Rollers	74	~~17~~ 52
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~

Source: Salter, ~~2023~~ 2024.

Table 4.6-9
Construction Equipment Noise Levels at Nearest Receptor – SMP 40

Offroad Equipment Type	Amount	Usage Hours	Resulting L_{max}
Grading			
Excavators	2	8	66
Graders	1	8	63
Rubber Tired Dozers	1	8	63
Scrapers	2	8	66
Tractors/ Loaders/ Backhoes	2	8	65
All Grading Equipment Running Simultaneously			**72**
Paving			
Pavers	2	8	70
Paving Equipment	2	8	70
Rollers	2	8	55
All Paving Equipment Running Simultaneously			**73**
Building Construction			
Cranes	1	7	61
Forklifts	3	8	66
Generator Sets	1	8	59
Tractors/ Loaders/ Backhoes	3	7	67
Welders	1	8	51
All Building Construction Equipment Running Simultaneously			**70**
Architectural Coating			
Air Compressors	1	8	59

Source: Salter, 2024.

As shown in ~~the table~~ Table 4.6-7, construction of SMP 40 is predicted to generate noise levels ranging between ~~16~~ 70 to ~~32~~ 73 dBA L_{max} at the nearest noise-sensitive receptors. As discussed in detail above, for analysis purposes of project construction noise within this EIR, a threshold of significance for the maximum allowable construction noise level at a sensitive receptor has been assumed to be 70 dB L_{max} during daytime hours ~~and 60 dB L_{max} during nighttime hours~~. Because construction is not permitted during nighttime hours (pursuant to Section 9.36.080 of the Livermore Municipal Code), the 60 dB L_{max} noise level standard for nighttime hours would not apply to the proposed project. ~~Accordingly~~ Nonetheless, the maximum predicted construction noise level of ~~32~~ 73 dBA L_{max} associated with SMP 40 would be ~~below~~ above the threshold~~s~~ of significance being applied.

The three potential off-site trail connection options would be located approximately 160 feet, 150 feet, and 200 feet, respectively, west of the nearest single-family residences. The anticipated construction activities required for the trail connection options would use construction equipment anticipated to generate maximum noise levels of up to 85 dB at a distance of 50 feet. As previously noted, stationary noise sources lessen at a rate of approximately six dB per doubling of distance from the source. Therefore, at a distance of 160 feet, construction equipment associated with Trail Connection Option 1 would generate maximum noise levels of up to 75 dB L_{max}; at a distance of 150 feet, construction equipment associated with Trail Connection Option 2 would generate maximum noise levels of up to 76 dB L_{max}; and at a distance of 200 feet, construction equipment associated with Trail Connection Option 3 would generate maximum noise levels of up to 73 dB L_{max}. Thus, construction activities associated with development of the off-site trail connection options would exceed the thresholds of significance being applied of 70 dB L_{max} during daytime hours ~~and 60 dB L_{max} during nighttime hours~~.

Based on the above, construction-related noise associated with SMP 39 ~~and SMP 40~~ would not result in the generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local

general plan or noise ordinance, or applicable standards of other agencies. However, while construction activities are temporary in nature and would be exempt during the hours of 7:00 AM to 8:00 PM, construction-related noise associated with SMP 40 and the off-site trail connection could result in disturbance to existing noise-sensitive land uses in the project vicinity.

Therefore, construction-related noise associated with the proposed project could be considered to result in generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and impacts would be considered ***significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.6-1(a) *Prior to issuance of a grading permit for SMP 40, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included within the plans and specifications for SMP 40, subject to review and approval by the City of Livermore Community Development Department. The project applicant shall demonstrate, to the satisfaction of the City that the project complies with the following:*

- *Consistent with the Livermore Municipal Code, construction shall be limited to weekdays between the hours of 7:00 AM and 8:00 PM and Saturdays through Sunday between the hours of 9:00 AM and 6:00 PM.*
- *Either a temporary noise barrier shall be built prior to development of the planned berm on the east side of the project site, or the berm shall be built prior to construction activities. The barrier/berm shall be a minimum of 10 feet tall. The barrier can be field-built provided it meets the following criteria:*
    - *The barrier shall be constructed to have a minimum surface density of four pounds per square foot (psf). For example, a stud wall with exterior-grade plywood sheathing and a stucco finish (or two layers of 5/8-inch thick plywood).*
    - *The barrier shall be free of cracks, and drainage holes/slots along the bottom of the barrier shall be kept to a minimum. Where needed, drainage holes/slots shall be covered by one psf mass-loaded vinyl flaps (e.g., Kinetics KNM-100) so water can flow around the vinyl and still drain.*
    - *Joints between sheathing layers shall be offset by 16 inches minimum.*
- *Contractors shall use "quiet" models of air compressors and other stationary noise sources, where technology exists.*
- *Internal combustion engine-driven equipment shall be equipped with mufflers which are in good condition and appropriate for the equipment.*
- *Stationary noise-generating equipment, such as air compressors and portable power generators, shall be located as far away as possible from adjacent property lines.*

- *Staging areas and construction material areas shall be located as far away as feasible from adjacent residences.*
- *All unnecessary idling of internal combustion engines should be prohibited.*
- *The contractor shall designate a "noise disturbance construction superintendent" who will be responsible for tracking and responding to any complaints about construction noise. The noise disturbance construction superintendent shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall require that reasonable measures are implemented to correct the problem. The telephone number for the noise disturbance construction superintendent shall be posted at the construction site and included in any construction notices sent to neighbors.*

4.6-1(b) *Prior to issuance of a grading permit for the chosen off-site trail connection option, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included within the plans and specifications for the trail connection option, subject to review and approval by the City of Livermore Community Development Department. The project applicant shall demonstrate, to the satisfaction of the City that the project complies with the following:*

- *All heavy construction equipment used on the proposed project shall be maintained in good operating condition, with all internal combustion, engine-driven equipment fitted with intake and exhaust mufflers that are in good condition.*
- *All mobile or fixed noise producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency shall comply with such regulations while ~~in the source of~~ involved with a project activity.*
- *Where feasible, electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment.*
- *All stationary noise-generating equipment shall be located as far away as possible from the nearest residential uses.*
- *Signs prohibiting unnecessary idling of internal combustion engines shall be posted at entrances to construction sites and at construction equipment staging areas.*
- *The use of noise-producing signals, including horns, whistles, alarms and bells shall be for safety warning purposes only.*
- *The use of temporary sound barriers shall be incorporated along the outer work area of the construction site, east of Isabel Avenue/SR 84. Barrier height and location(s) shall be determined by a qualified acoustical engineer to ensure that the resultant construction noise levels at the nearest residence would meet the applicable standard. The sound barrier fencing shall consist of 0.5-inch plywood or minimum STC 27 sound curtains placed to shield nearby sensitive receptors. The plywood barrier shall be free from gaps, openings, or penetrations to ensure maximum performance.*

Due to the addition of Table 4.6-7, all subsequent tables included in Chapter 4.6, Noise, of the Draft EIR are hereby renumbered accordingly.

While a new mitigation measure (Mitigation Measure 4.6-1[a]) has been added as part of the text revisions above, under *Laurel Heights Improvement Ass'n v Regents of Univ. of Cal.* (1993) 6 C4th 1112 (*Laurel Heights II*) and Section 15088.5 of the State CEQA Guidelines,[2] a lead agency is only required to recirculate a draft EIR when "significant new information" is added to the document after public notice is given of the availability of the Draft EIR for public review under Section 15087 but before certification. Pursuant to CEQA Guidelines Section 15088.5, the term "information" can include changes in the project or environmental setting, as well as additional data or other information. New information added to an EIR is not considered "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the City has decided not to implement. "Significant new information" requiring recirculation includes any of the following:

1. A new significant environmental impact would result from the project or for a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from other previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
4. The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

In the case of the proposed project, the Draft EIR already determined that the proposed project would result in a significant temporary construction noise impact (see page 4.6-23 of the Draft EIR). Thus, a new noise impact has not been identified in response to public comments. Rather, in response to public comments, a new construction noise mitigation measure (Mitigation Measure 4.6-1[a]) has been added that would clearly lessen the potential environmental impact to a less-than-significant level, and the applicant has agreed to adopt Mitigation Measure 4.6-1(a). In addition, the requirements of Mitigation Measure 4.6-1(a) are similar to the requirements already included in Mitigation Measure 4.6-1 of the Draft EIR. Thus, according to Section 15188.5(a)(3), recirculation is not required.

The Mitigation Monitoring and Reporting Program, as well as the Findings, Facts in Support Of Findings, and Statement Of Overriding Considerations, will be updated in accordance with the changes shown above and included in the staff report packet for the City Council hearing on the proposed project.

Attachments
Attachment 1 – Attorneys for Carpenters Local 713 Comment Letter
Attachment 2 – SMP 39 Revised Environmental Noise Study
Attachment 3 – SMP 40 Revised Environmental Noise Study

[2] Stephen L. Kostka and Michael H. Zischke. *Practice Under the California Environmental Quality Act, Second Edition, March 2022 Update, Volume 2*. March 2022, pg. 16-21.

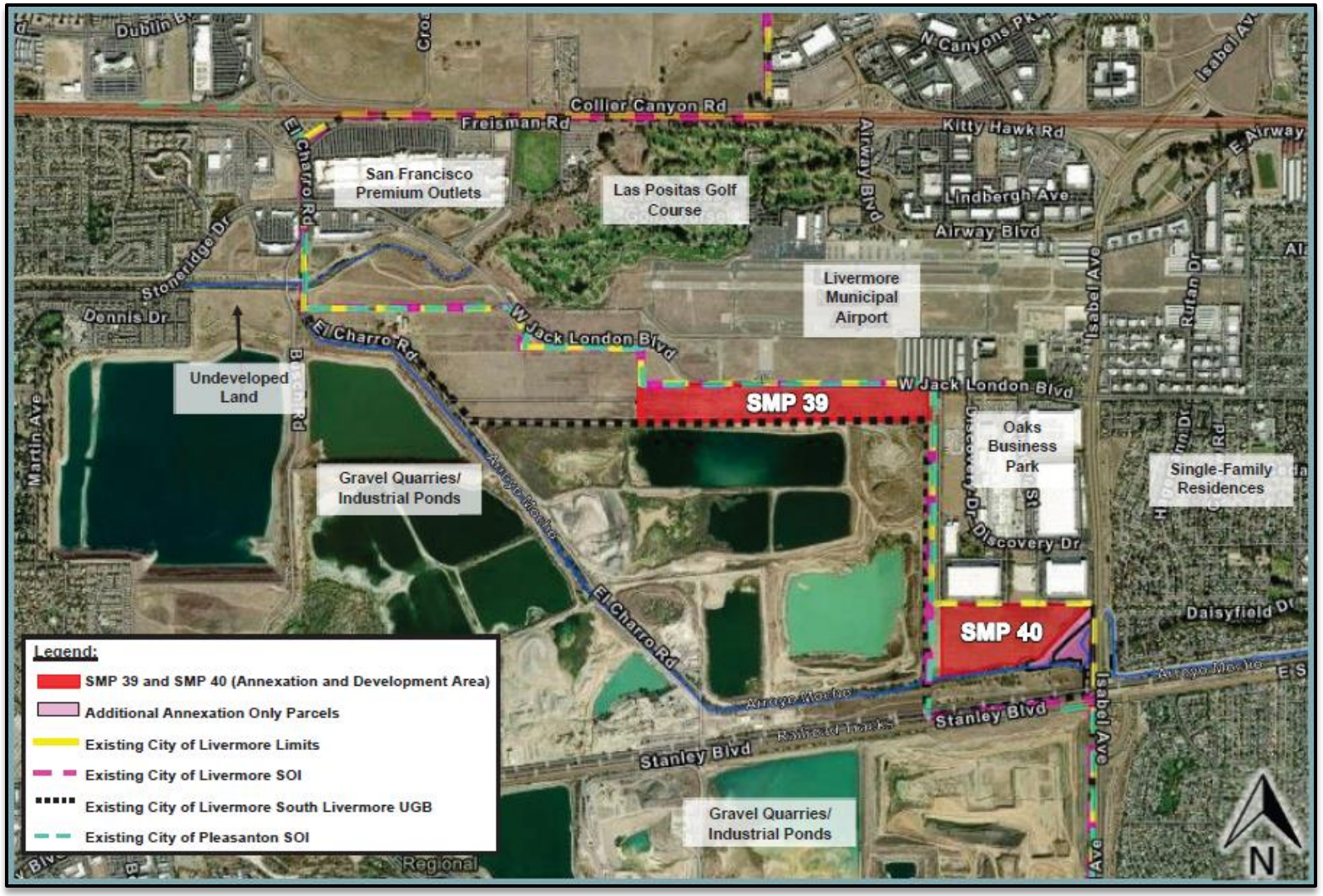
Surface Mining Permit (SMP) 39/40 Project
Planning Commission

Presented by Ashley Vera

March 5, 2024

LIVERMORE

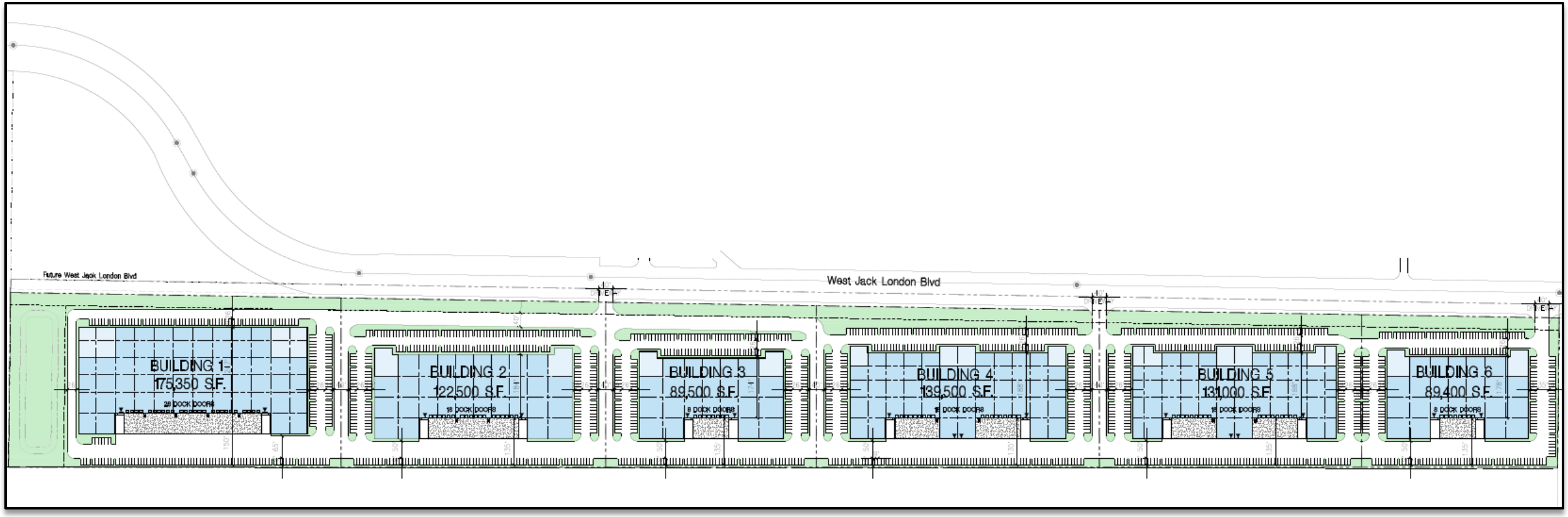
Project Location



Entitlement/Action Summary

- General Plan Amendment
- Annexation/Prezoning
- Zoning Map Amendment/Planned Development District/Development Code Amendment
- Vesting Tentative Subdivision Map (2)
- Development Agreement (2)
- Site Plan Design Review (1)
- EIR Certification
- LAFCo application submittal

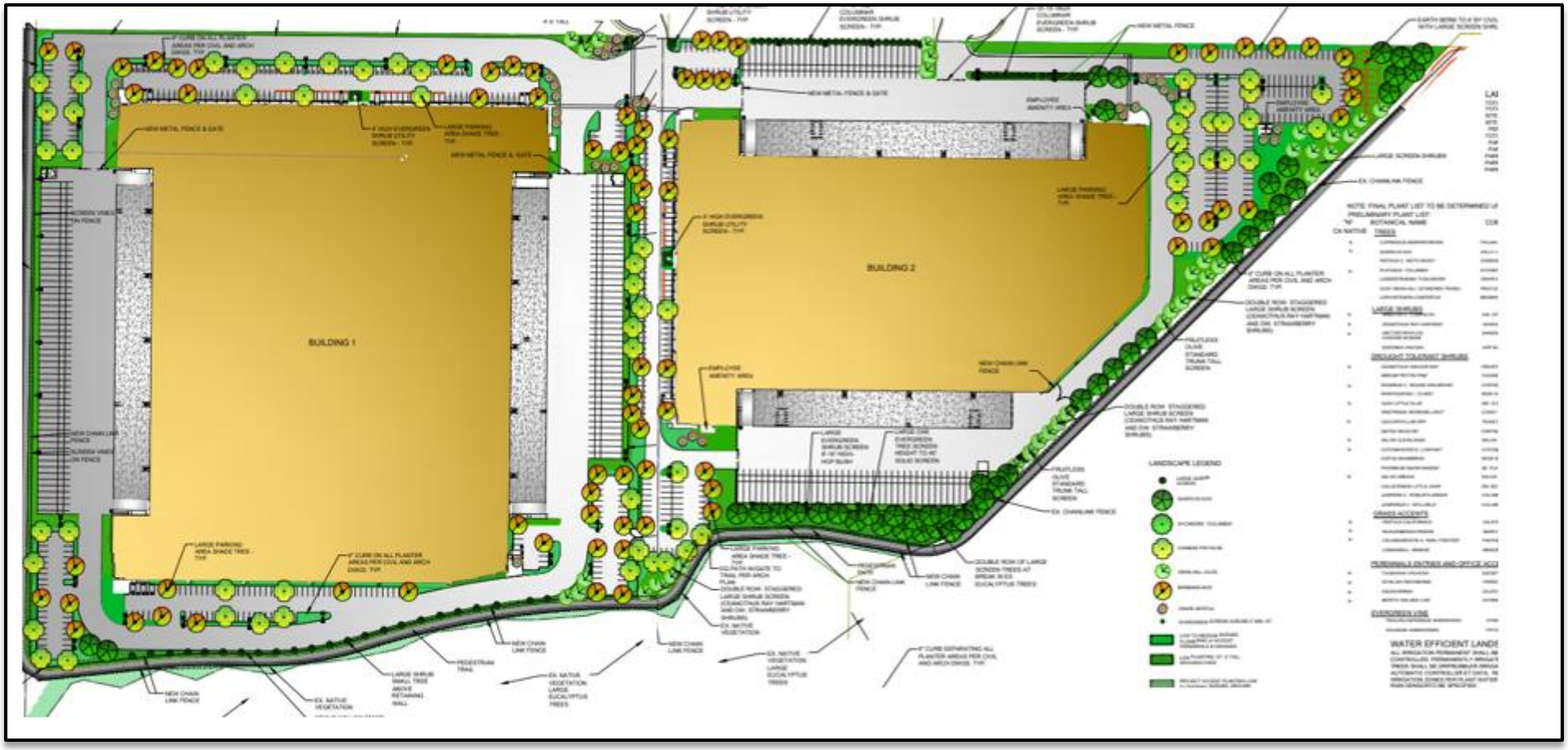
SMP 39 Conceptual Site Plan



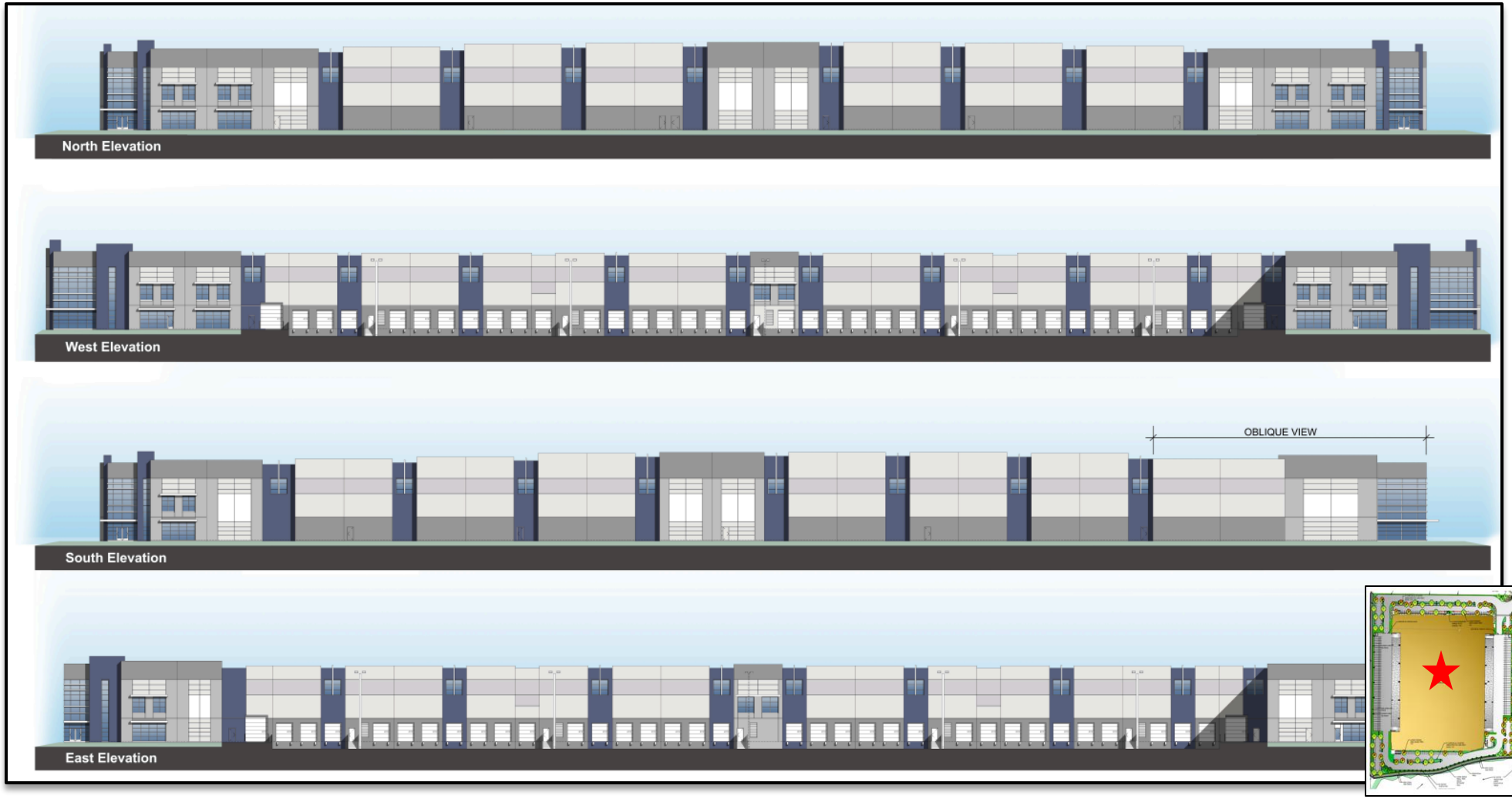
Revised Engineering Consideration

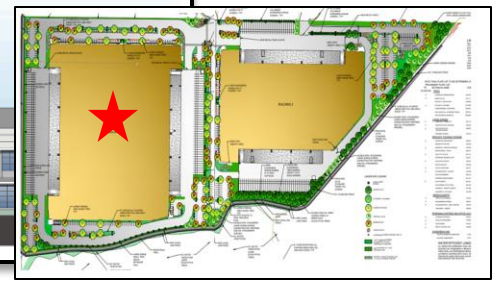
The widening of West Jack London Boulevard shall include the installation of streetlights. The final layout of the streetlights will be determined by the City Engineer during the development of improvement plans for the street widening.

SMP 40 Site Plan



SMP 40 Elevations – Western Building





SMP 40 Elevations – Eastern Building

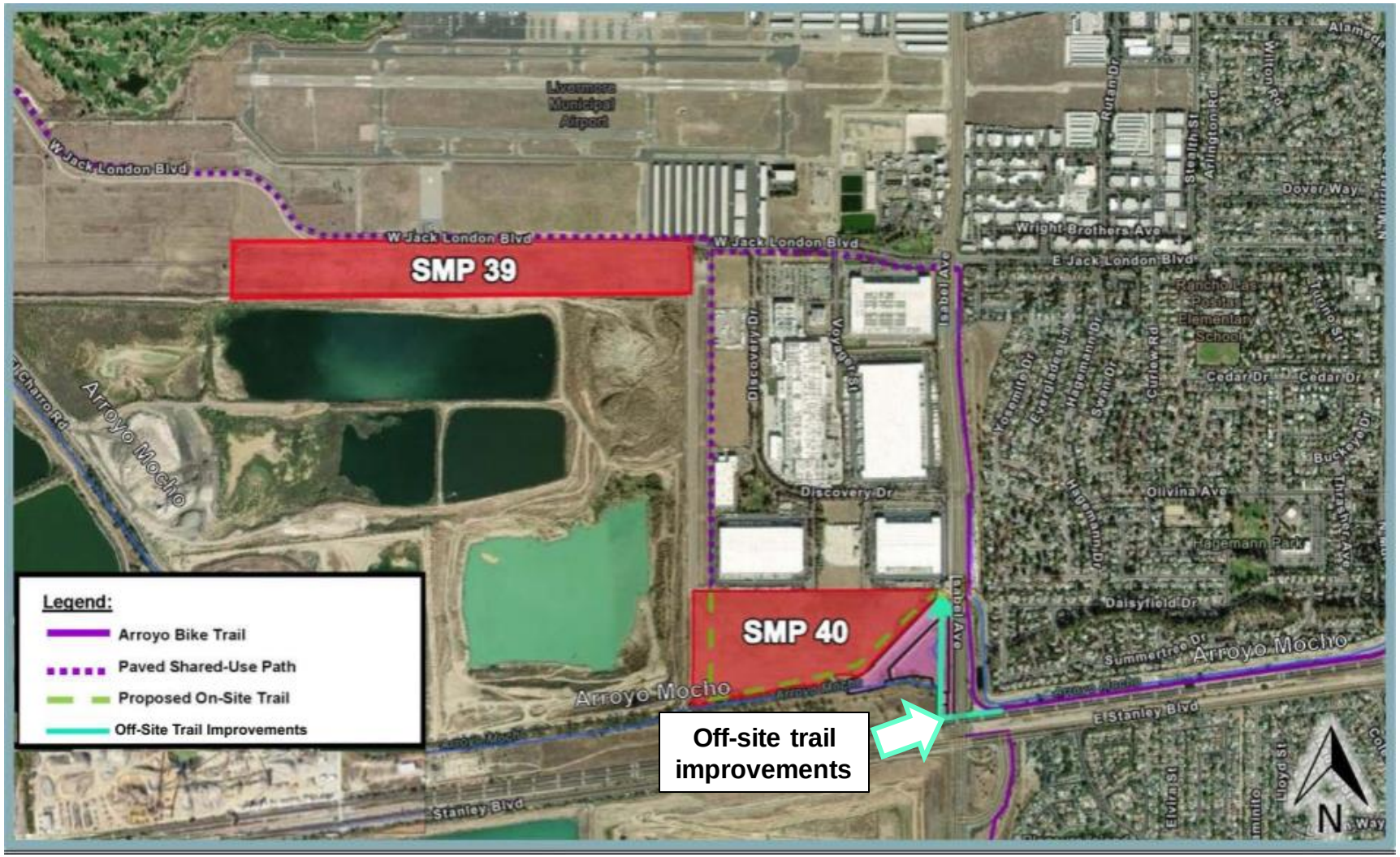
LIVERMORE CALIFORNIA

Planned Development Zoning

Light industrial uses including:

- Research and development facilities
- Professional and administrative offices
- Experimental and testing laboratories
- Manufacturing uses
- Warehouse and distribution – permitted on SMP 40, conditionally permitted on SMP 39 and limited to 20% of buildable area

Trail Improvements



Development Agreement

- Developer financial contribution toward marketing SMP 39 towards desired uses in PD-I 22-001
- Developer financial contribution and construction of off-site trail improvements
- Forfeiture of mining rights

EIR Topics Analyzed

- Agricultural Resources
- Air Quality, Greenhouse Gas Emissions, and Energy
- Biological Resources
- Cultural and Tribal Cultural Resources
- Hydrology and Water Quality
- Noise
- Public Services, Utilities, and Service Systems
- Transportation

EIR Impact Summary

Less than Significant with Mitigation:

- Air Quality, Greenhouse Gases and Energy
- Biological Resources
- Cultural and Tribal Cultural Resources
- Hydrology and Water Quality
- Public Services, Utilities and Service Systems
- Noise
- Transportation

Significant and Unavoidable:

- Agricultural Resources

Statement of Overriding Considerations

- Revitalizes underutilized lands appropriate for infill development and which are compatible with surrounding development
- Promotes industrial development consistent with the General Plan
- Provides opportunity for local jobs with competitive salaries
- Creates logical boundaries which align with the City's UGB
- Includes improvements to West Jack London Boulevard and on and off-site trail improvements
- Generates long-term sustainable property and potential sales tax revenue

Next Steps

- City Council – March 25
- LAFCo – Spring 2024

Staff Recommendation

Staff recommends the Planning Commission recommend City Council:

1. Adopt a resolution certifying the Final Environmental Impact Report (including the Supplemental Response to Comments and Errata) pursuant to the California Environmental Quality Act (CEQA); and

2. Adopt a resolution approving Annexation/Prezoning (APZ) 21-003, Pre-Annexation and Development Agreement (DA) 21-001, Pre-Annexation and Development Agreement (DA) 23-002, General Plan Amendment (GPA) 21-001, Zoning Map Amendment (ZMA) 21-002, Development Code Amendment (DCA) 21-005, Planned Development Industrial (PD-I) 22-001, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008, subject to conditions of approval as modified by staff.

OMP OAKS BUSINESS PARK

LIVERMORE CALIFORNIA

SITE HISTORY

- SMP-39 AND SMP-40 owned by Pleasanton Gravel Company in excess of 50 years
- Vacant grassland with Surface Mining Permits
- PCG Acquired these properties with the intention of mining these properties
- PGC-OMP Introduction and agreement since 2019
- OMP working on this project with City of Livermore over 3 years

AERIAL OVERVIEW

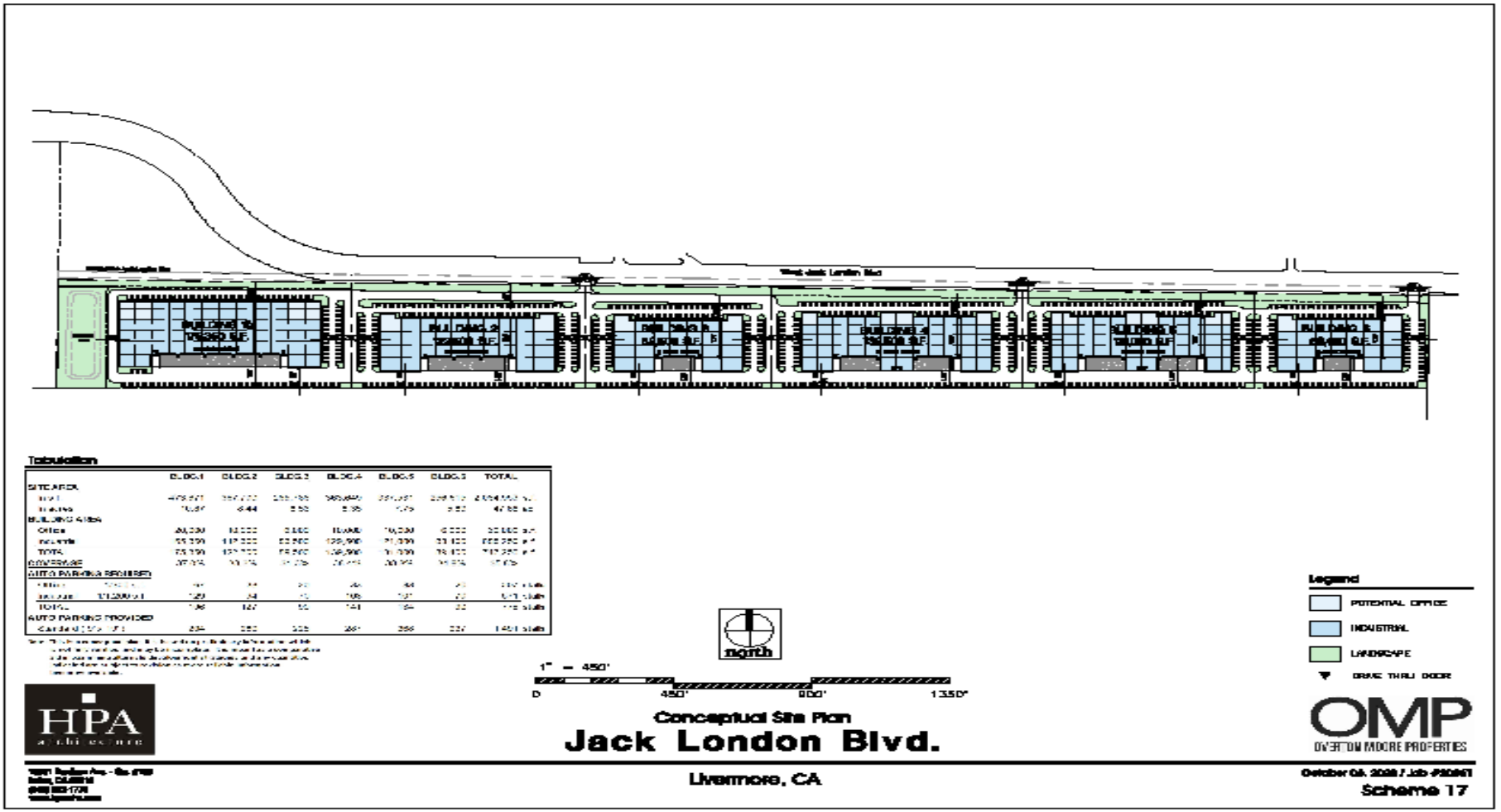
ATTACHMENT 3

OMP OAKS BUSINESS PARK

LIVERMORE CALIF

PROJECT DESCRIPTION- SMP 39

- Six proposed building/ 755,000 SF
- Designed to meet user flexibility- for sale or lease; smaller buildings for local entrepreneurs
- Site planning submittal in 4Q 2024
- Planning Commission 2Q 2025
- Dedicating land and cost of improvements for widening of Jack London Blvd and bike trail



OMP OAKS BUSINESS PARK

LIVERMORE CALIF

PROPOSED ELEVATIONS SMP 39

ATTACHMENT 3

BLDG. 5 NORTH ELEVATION

BLDG. 5 WEST ELEVATION

HPA architecture

LIVERMORE SMP 39 - BLDG. 5

Livermore, CA

OMP OVERTON MOORE PROPERTIES

Job No 20061 | CONCEPTUAL COLORED ELEVATIONS | 03/16/2022

OMP OAKS BUSINESS PARK

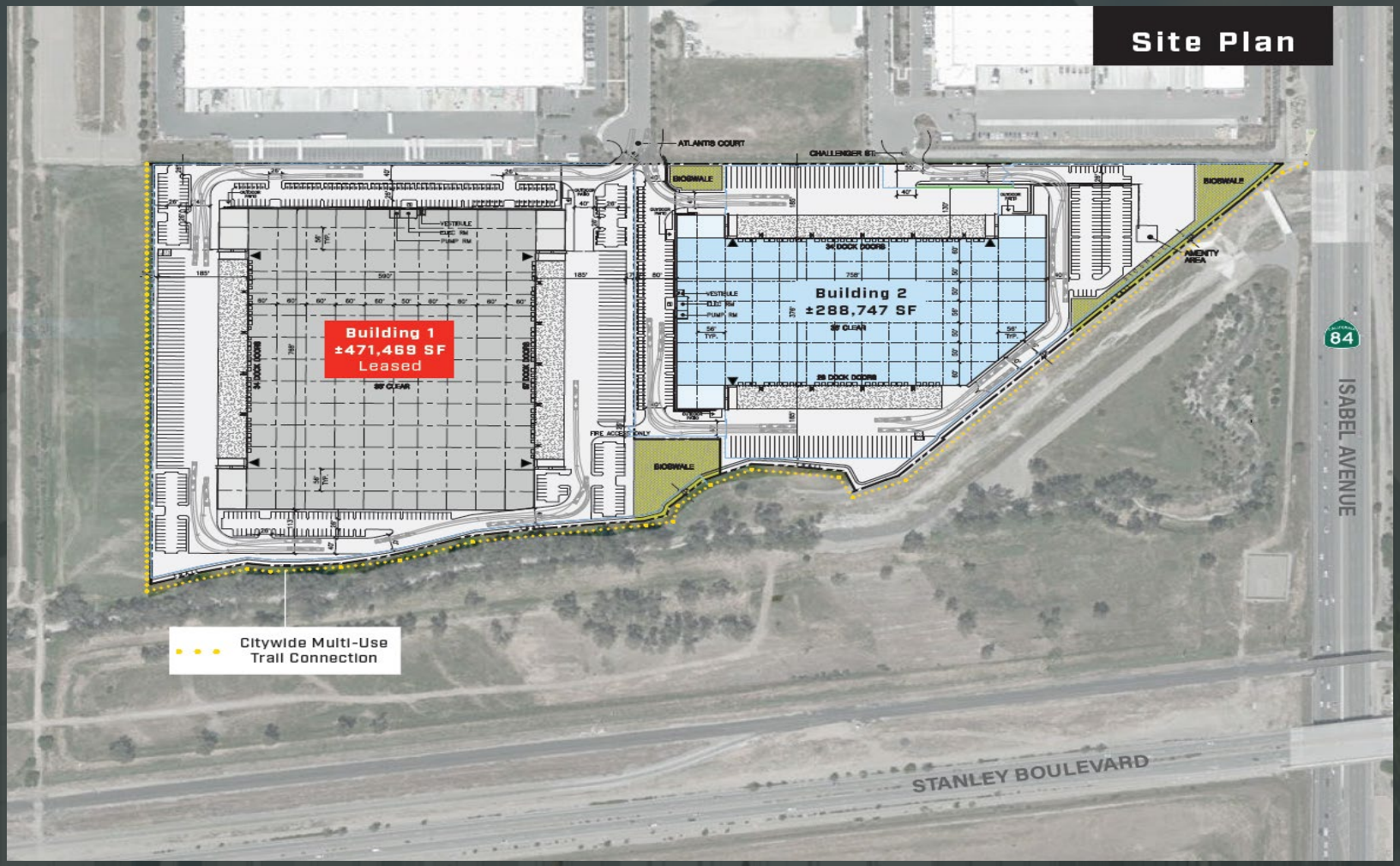
LIVERMORE CALIF

PROJECT DESCRIPTION- SMP 40

- Two buildings- 477,000 and 280,000 sf
- Building 1 Pre-leased to LAM Research- Expanding in Livermore
- Building 2 Design: Sensitive to Neighbors to the east
  - North/South loading
  - Screened loading areas
  - 884-1,000’ from neighbors to the East
  - Limited night time traffic
- Commence grading 6/15/24

SITE PLAN SMP 40

ATTACHMENT 3



OMP OAKS BUSINESS PARK

LIVERMORE CALIF

OMP OAKS BUSINESS PARK

LIVERMORE CALIF.

PROJECT BENEFITS

ATTACHMENT 3

- Hundreds of new high quality jobs and tens of millions of dollars in annual salaries and wages
- Annex property into the City of Livermore. Long term tax revenue
- Combination of warehouse/Dist. and Advance Mfg. jobs
- Hundreds of new construction jobs- Sheet Metals Workers Local 104, IBEW, Sprinkler Fitters, Ironworkers, UA P&S

PROJECT BENEFITS

ATTACHMENT 3

- Additional Revenue for the City of Livermore, MUSD, and other agencies
- Improved Jobs – Housing Balance- reduce commute times
- Expansion Opportunities for a new or existing companies in Livermore- Building 1
- Support for Livermore retail and restaurants
- Arroyo Mucho Trail Connection- get bikes off Isabel/Jack London

ECONOMIC BENEFITS SMP 40 ONLY

(Source Kosmont & Assoc)

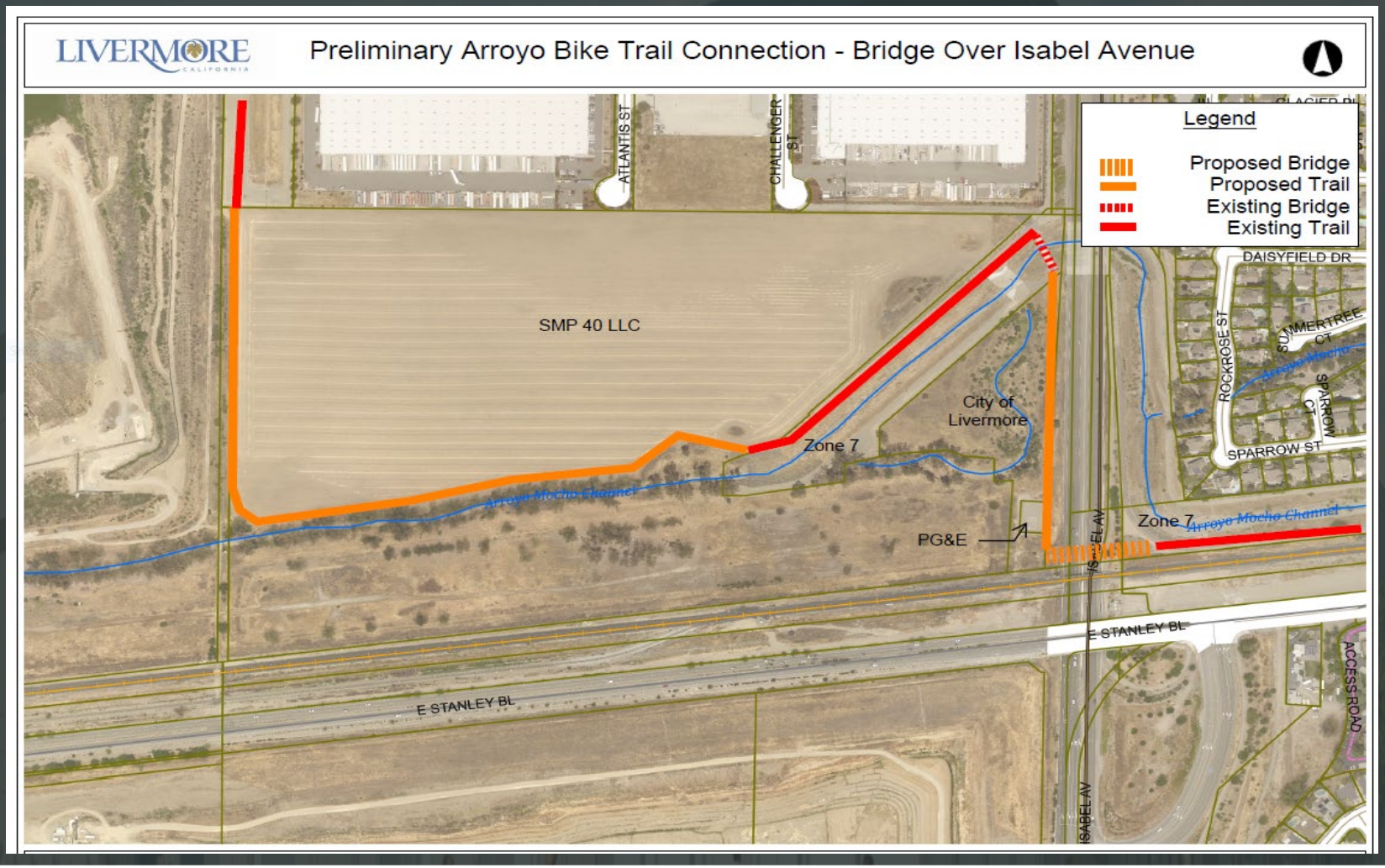
Over $14 million in one-time development fees	→	Development Impact and City Fees
One time $ 792,000 in LVJUSD Fees + $280,000/yr.	→	Funding Local Schools
$180,000/yr. of $3.6 million over 20 years in direct revenues to support resident services. $79,000/yr. for LARPD	→	Police and Fire Services Parks and Recreation
$100,000 contribution for Marketing and City branding	→	Funding to Livermore IEDD to promote City of Livermore

OMP OAKS BUSINESS PARK

LIVERMORE
CALIFORNIA

TRAIL OVERVIEW

ATTACHMENT 3



OMP OAKS BUSINESS PARK

BUILDING DISTANCES

ATTACHMENT 3

OMP OAKS BUSINESS PARK

LIVERMORE CALIF

LIVERMORE
CALIFORNIA

PLANNING COMMISSION
MARCH 5, 2024

REGULAR MEETING

1. CALL TO ORDER – The meeting of the Planning Commission was called to order by Chairperson Jacob Anderson at 7:00 pm, held in person at 1016 S. Livermore Avenue.

ROLL CALL – Present: Chairperson Jacob Anderson, Vice-Chairperson Yolanda Fintschenko, Commissioner Steven Dunbar, Commissioner Daniel Leary, Commissioner Tracy Kronzak.

PLEDGE OF ALLEGIANCE

3. OPEN FORUM

Chairperson Anderson opened the public comment period.

Weng Tam, provided a comment.

There were no more speakers, and the public comment period was closed.

4. CONSENT CALENDAR - NONE

5. PUBLIC HEARINGS

5.1 Hearing to consider a request for an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Development Code Amendment, Vesting Tentative Parcel Map, Vesting Tentative Tract Map, Planned Development, and Site Plan Design Review for the SMP 39 and 40 Project to zone for and develop light industrial uses near the northwest part of the City.

Recommendation:

Staff recommends the Planning Commission recommend the City Council take the following actions to authorize the future development of light industrial buildings on the SMP 39 and SMP 40 properties:

1. Adopt a resolution certifying the Final Environmental Impact Report pursuant to the California Environmental Quality Act (CEQA); and
2. Adopt a resolution approving Annexation/Prezoning (APZ) 21-003, Pre-Annexation and Development Agreement (DA) 21-001, Pre-Annexation and Development Agreement (DA) 23-002, General Plan Amendment (GPA) 21-001, Zoning Map Amendment (ZMA) 21-002, Development Code Amendment (DCA) 21-005, Planned Development-Industrial (PD-I) 22-001, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative

Senior Planner Ashley Vera presented the staff report.

The Developer, Timur Tecimer, Managing Partner, CEO, Overton Moore Properties, presented an overview of the project

Chairperson Anderson opened the public comment period.

Jason Camara, provided a comment in support of the project.

Jean King, provided a comment in support of the project.

Brian Werner, provided a comment in support of the project.

Joel Toscano, provided a comment in opposition of the project.

Ruhama Tereda, provided a comment in opposition of the project.

There were no more speakers, and the public comment period was closed.

In response to Commissioner Leary, Senior Planner Vera explained that the noise levels were consistent with those allowed in the General Plan, except for construction noise which required mitigation. She clarified that the Planning Commission could require reporting for more than three years under Mitigation Measure 4.8-3. Ms. Vera explained that the City of Pleasanton was taking a resolution to its Council on March 19, 2024, to support SMP 39 going to Livermore and that Surface Mining Permit (SMP) 38 was no longer part of the project. Commissioner Leary discussed the letter from the Regional Water Quality Control Board regarding storm water quality or hydromodification controls. Senior Civil Engineer Debbie Salgado clarified that the issues had been clarified with the Water Board. Civil Engineer Adam Mahony explained removal of the 100-year overflow and that flows could drain towards the Oaks Business Park retention basin and would be overland release.

In response Commissioner Kronzak, Senior Planner Vera explained that CEQA evaluated the likelihood of habitat occurrence on a site and the impact of development. She stated the 884-foot noise measurement was from the northeast side of the building. She discussed the necessary coordination and permits from Caltrans, PGE and Zone 7 required for the overpass crossing; timelines in the

Development Agreement for construction of the trail; and timeline for Alameda County Local Agency Formation Commission (LAFCO) required consent letters for annexation in advance of the construction.

In response to Commissioner Dunbar, Senior Planner Vera confirmed that it was not the responsibility of an EIR to mitigate Vehicle Miles Travelled (VMT) beyond that required to mitigate significant impact; nor the responsibility of the developer to mitigate VMT beyond the City's determination of their fair share of mitigation set by the development impact fees. She stated onsite trail improvements would be part of the Citywide Community Facilities District and the Citywide Benefit Fund was not fully developed.

In response to Commissioner Dunbar, Timur Tecimer, Managing Partner, CEO, Overton Moore Properties, Developer, explained that both buildings would have secured yards and there would be bike racks around the building.

Commissioner Dunbar concurred with the idea of a longer review period for the Transportation Demand Management Program (TDM), which includes an employee carpool program,

In response to Vice-Chairperson Fintschenko, Senior Planner Vera explained the difference between a tentative tract map and tentative parcel map. She discussed costs associated with reporting on the carpooling program. Mr. Tecimer stated the cost would be borne by the tenant and that they were not opposed to extending the TDM reporting requirement but would request reporting be ended if the third year showed mitigation was performed. Senior Planner Vera explained that CEQA covered transportation related impacts to both construction and operation of the project. She stated she did not know why the Golden State Environmental Justice Organization in Southern California was interested in development in Northern California. She explained coordination between all agencies to ensure mitigation measures were met; and confirmed that no agricultural uses were proposed and no agriculture uses were occurring on the project site. She stated it was unlikely that the number of agricultural jobs would be greater than jobs created for industrial development. Ms. Vera clarified that fast food, banks and personal uses would be considered conditional uses and other uses providing goods for the convenience and support of the surrounding occupants would also require a CUP and be brought to the Planning Commission for review and approval.

Chairperson Anderson expressed appreciation for site lines in the development plan and appreciation to the applicant for making changes to reduce noise impacts. He suggested a better shading tree for the employee amenities area.

Commissioner Leary indicated he could make the required findings. Mr. Tecimer confirmed that Kosmont and Associates had conducted an economic analysis for both SMP 39 and 40 and determined the benefits to the City.

In response to Commissioner Kronzak, Acting Planning Manager Steve Riley stated, in the past, there had been noise complaints from loading at Tesla building north of the project site but there were very few complaints over the last few years.

Commissioner Kronzak discussed the need to ensure the EIR met the full requirements of the State of California. In response to Commissioner Kronzak, Senior Planner Vera confirmed that zoning to Open Space Floodplain was appropriate for the Annexation-Only parcels just east of SMP 40.

Commissioner Dunbar confirmed that, with mitigations, the project complied with Level of Service (LOS) standards and that Airway Boulevard intersection was exempt. Senior Planner Vera stated staff was open to looking into fencing and access in coordination with Zone 7. She discussed the trail to the parking lot. Commissioner Dunbar suggested it be concrete with ramp to parking lot. Mr. Tecimer indicated they would look into it. Commissioner Dunbar confirmed that the design of Jack London Boulevard was prescribed by the General Plan and suggested consideration of the long-term asset management plan for the street. He discussed the jobs - housing balance and match and stated the findings could be made. He expressed concern about the grade on the proposed trail options and suggested Option 3. He urged careful attention to the trail crossing on Jack London for safety and indicated he could make all the required findings.

Vice-Chairperson Fintschenko indicated and provided reasons for being able to make the required findings and indicated support for Trail Option 3.

The Commission discussed the suggestion to increase VMT reporting beyond three years and determined to defer to staff to amend the three-year reporting requirement between 3-8 years.

In response to Commissioner Leary, Mr. Tecimer explained that the proposed buildings were not ideal for e-commerce facilities.

ON THE MOTION OF COMMISSIONER LEARY, SECONDED BY VICE-CHAIR FINTSCHENKO AND CARRIED ON A 5-0 VOTE, THE PLANNING COMMISSION ADOPTED THE FOLLOWING RESOLUTIONS:

Resolution 02-24 certifying the Final Environmental Impact Report

Resolution 03-24 approving Annexation/Prezoning (APZ) 21-003, Pre-Annexation and Development Agreement (DA) 21-001, Pre-Annexation and Development Agreement (DA) 23-002, General Plan Amendment (GPA) 21-001, Zoning Map Amendment (ZMA) 21-002, Development Code Amendment (DCA) 21-005, Planned Development-Industrial (PD-I) 22-001, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008, with the condition that paved ramps be provided from each building connecting to their respective parking lots at the access gates to the on-site trail.

6. MATTERS FOR CONSIDERATION - NONE

7. MATTERS INITIATED BY PLANNING COMMISSION AND STAFF

Commissioner Kronzak reemphasized the City's success with its Climate Action Plan and Urban Forestry goals and encouraged planting and replanting native species.

Commissioner Dunbar suggested discussion of a policy on preferred VMT mitigation.

8. ADJOURNMENT – at 9:03pm to a Regular Planning Commission Meeting on Tuesday, March 19, 2024, at 7:00 pm, Civic Center Meeting Hall, City Council Chambers, 1016 S. Livermore Avenue.

DRAFT

Figure 3-2
Approximate Project Site Boundaries Map

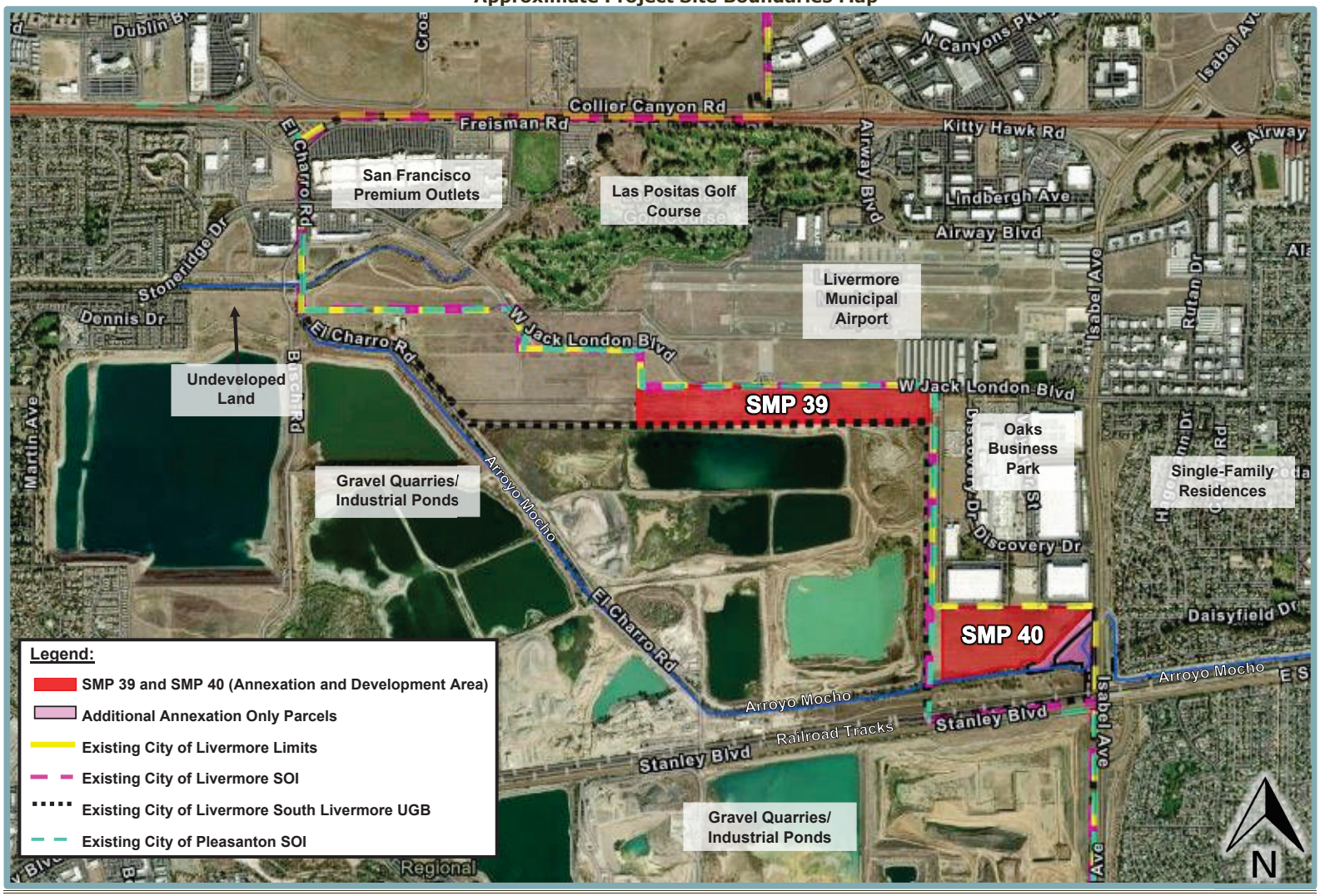


Figure 3-3
Proposed SOI Amendment Area

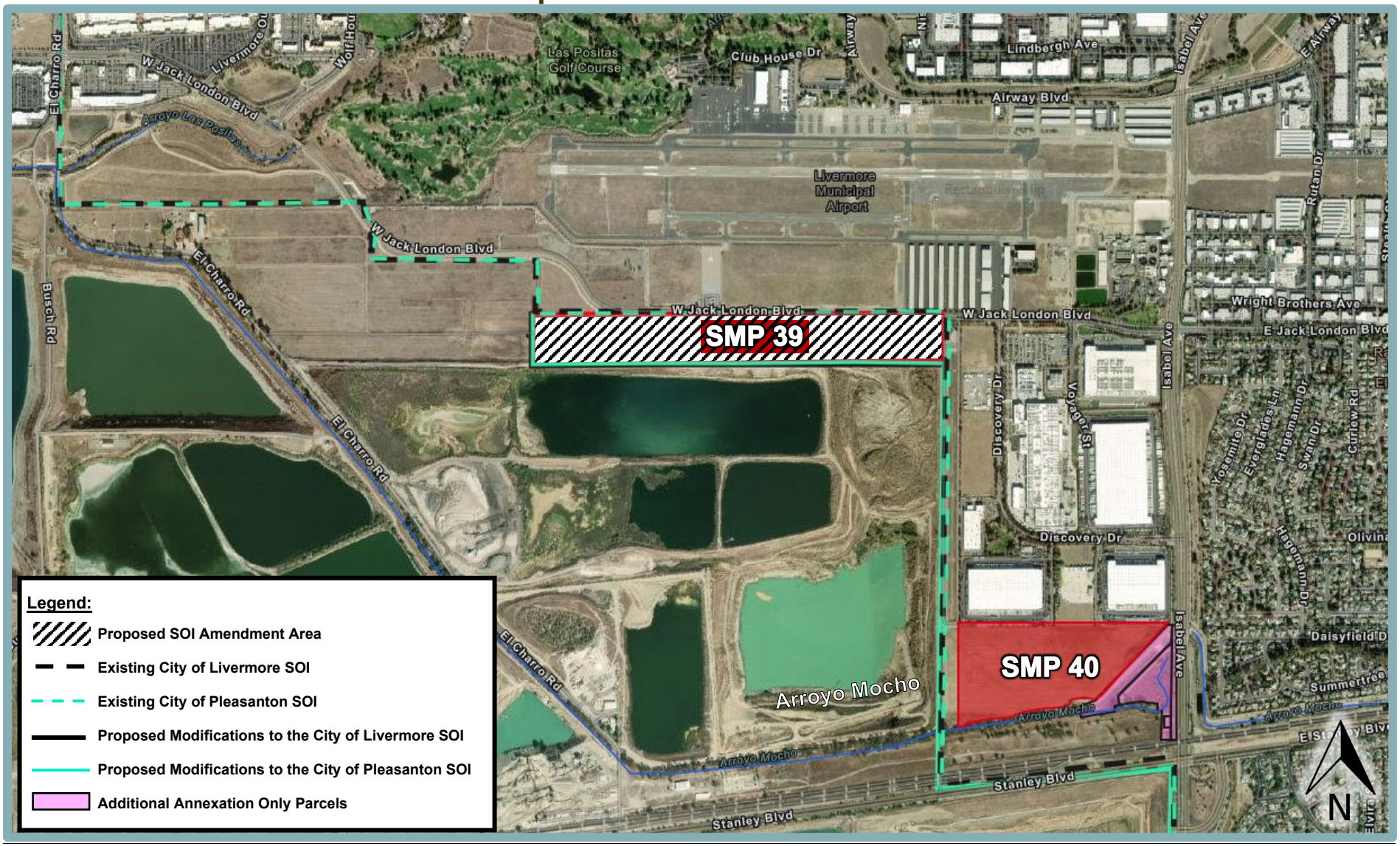


Figure 3-4
Proposed Annexation Area

VESTING TENTATIVE MAP
OF
TRACT 8656
FOR
OVERTON MOORE PROPERTIES

LIVERMORE, CALIFORNIA

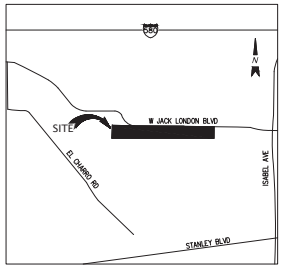
LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF LIVERMORE, IN THE COUNTY OF ALAMEDA, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

ALL THAT REAL PROPERTY SITUATE IN THE SANTA RITA RANCHO, ALAMEDA COUNTY, CALIFORNIA, BEING A PORTION OF THE LAND DESCRIBED AS PARCELS 1 AND 2 IN THE GRANT DEED TO PLEASANTON GRAVEL CO., AS RECORDED DECEMBER 15, 1977, ON REEL 5181, AT IMAGE 177 (SERIES NO. 77-247154), ALAMEDA COUNTY RECORDS, BEING DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID PARCEL 1; THENCE ALONG THE WESTERLY LINE OF SAID PARCEL 1, SOUTH 00° 28' 57" WEST, 1000.01 FEET MORE OR LESS TO A POINT DISTANT 1000 FEET SOUTHERLY OF, MEASURED AT RIGHT ANGLES, TO THE NORTHERLY LINE OF SAID PARCELS 1 AND 2 AND THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE PARALLEL TO THE NORTH LINE OF SAID PARCELS 1 AND 2, SOUTH 89° 24' 17" EAST, 4493.91 FEET TO A POINT ON THE EASTERLY LINE OF SAID PARCEL 2; THENCE ALONG THE EAST LINE OF SAID PARCEL 2, SOUTH 00° 16' 36" WEST, 469.21 FEET; THENCE LEAVING SAID EAST LINE, SOUTH 89° 20' 52" WEST, 4496.04 FEET TO INTERSECT THE WEST LINE OF SAID PARCEL 1; THENCE ALONG THE SAID WEST LINE, NORTH 00° 28' 57" EAST, 542.25 FEET TO THE POINT OF BEGINNING.

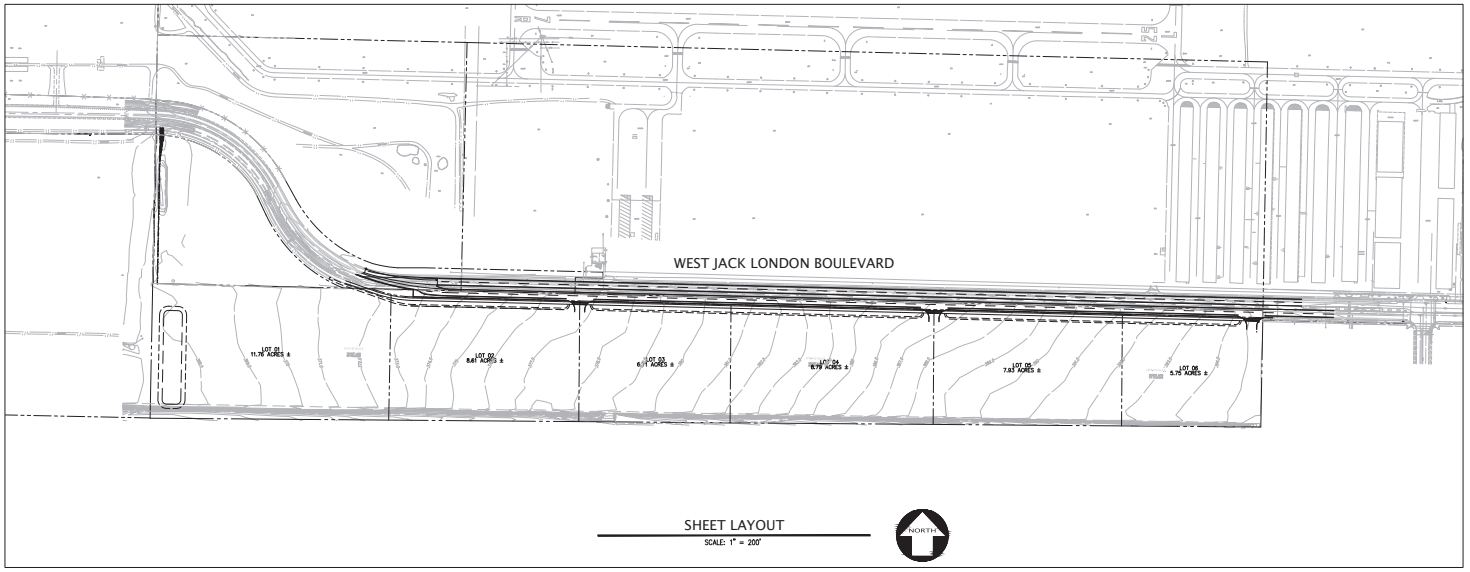
APN: 904-0003-001-04



VICINITY MAP
NOT TO SCALE

SHEET INDEX

#	SHEET NO.	SHEET
1	TM-1	VESTING TENTATIVE MAP - COVER SHEET
2	TM-2	VESTING TENTATIVE MAP
3	TM-3	VESTING TENTATIVE MAP
4	TM-4	VESTING TENTATIVE MAP - STRIPING PLAN



SHEET LAYOUT
SCALE: 1" = 200'

LEGEND

ABUTTER'S RIGHTS RELINQUISHED
ASPHALT BERM
BUILDING LINE
BARRICADE
CAST IRON PIPE LINE
CENTER LINE
CHILLED WATER LINE
COMMUNICATION LINE
CONCRETE/BLOCK WALL
CONCRETE CURB
CONCRETE CURB & GUTTER
MAJOR CONTOUR LINE
OBSCURED MAJOR CONTOUR LINE
MINOR CONTOUR LINE
OBSCURED MINOR CONTOUR LINE
DUCTILE IRON PIPE LINE
DRIVEWAY
EASEMENT LINE
EDGE OF PAVEMENT
EDGE OF WATER/FLOWLINE
EDGE OF ROCK
ELECTRIC LINE
FENCE LINE
FIBER OPTICS LINE
FIRE SERVICE LINE & VALVE
FUEL LINE
GAS LINE-VALVE & METER
GAS LINE-ABANDONED
GUARD RAIL
HIGH PRESSURE GAS LINE
HIGH PRESSURE OIL LINE
HYDROGEN LINE
IRRIGATION WATER LINE
JOINT TRENCH LINE
LOT LINE
PIPELINE
MONUMENT/MONUMENT LINE
OIL LINE
OVERHEAD POWER LINE
PETROLEUM LINE
PLANT WASTE LINE
PROPERTY LINE
RAILROAD TRACKS
RETAINING WALL
RECLAIMED WATER LINE & VALVE
SANITARY SEWER LINE-MANHOLE & CLEANOUT
SANITARY SEWER LINE OVER 24"DIAMETER
SANITARY SEWER FORCE MAIN LINE
SIDEWALK
SPOT ELEVATION
STORM DRAIN LINE-MANHOLE & CATCH BASIN
STORM DRAIN LINE-MANHOLE & CATCH BASIN
STORM DRAIN LINE OVER 24"DIAMETER
STORM DRAIN FORCE MAIN LINE
STREET LIGHT CONDUIT LINE
STEAM LINE
TELEPHONE LINE
TRAFFIC SIGNAL CONDUIT LINE
CABLE TELEVISION LINE
UNKNOWN UTILITY LINE
WATER LINE & VALVE
WATER LINE OVER 24"DIAMETER
ACCESSIBLE PARKING SYMBOL
ANODE
AREA DRAIN
AUTOMATIC SPRINKLER
BACKFLOW PREVENTION DEVICE
BENCHMARK/TEMPORARY BENCHMARK
BLOWOFF VALVE
CONTINUOUS DEFLECTIVE SEPARATION UNIT
FOUND/SET CROSS
DOUBLE DETECTOR CHECK VALVE
ELECTROLIER
FIRE DEPARTMENT CONNECTION
FIRE HYDRANT
FLAG POLE
GAS METER
GUY ANCHOR
HOSEBIBB
HUB & TACK FOUND
IRON PIPE FOUND
MAIL BOX
NAIL FOUND
POST INDICATOR VALVE
POWER POLE/JOINT POLE
RAILROAD CROSSING
RAILROAD SPIKE FOUND
REBAR FOUND
SURVEY CONTROL POINT
TELEPHONE BOOTH
TRANSFORMER
TRANSMISSION TOWER
TRAFFIC SIGNAL POLE
TRAFFIC SIGN
TREE
UTILITY BOX
UTILITY LINE MARKER
WALK-BOLLARD LIGHT
WATER VALVE
WELL

A.P.N.	*904-0003-001-04*
EXISTING LAND USE	*COUNTY-AGRICULTURAL*
PROPOSED LAND USE	*1-2-(MEDIUM-DENSITY-INDUSTRIAL)*
GENERAL PLAN DESIGNATION	*PD-(PLANNED-DEVELOPMENT)*
EXISTING ZONING	*COUNTY-AGRICULTURAL*
TRACT AREA	*49.55-ACRES±*
PUBLIC DEDICATION	*2.33-ACRES±*
GROSS AREA	*51.88-ACRES±*
LOTS	*6*
SMALLEST LOT	*5.75-ACRES±(LOT-06)*
LARGEST LOT	*11.76-ACRES±(LOT01)*
STORM AND SANITARY NETWORK	*CITY OF LIVERMORE*
TELEPHONE NETWORK	*PACIFIC BELL*
GAS AND ELECTRICITY	*PACIFIC GAS & ELECTRIC*
WATER	*CITY OF LIVERMORE*
FIRE HYDRANTS	*TO BE LOCATED TO THE SATISFACTION OF THE FIRE MARSHALL AND CITY ENGINEER*

BENCHMARK:
CITY OF LIVERMORE BENCHMARK 2K-667; CHISELED SQUARE IN THE TOP OF CURB AT A STORM WATER INLET ON THE EAST SIDE OF ISABEL AVENUE, 30' ± SOUTH OF THE RETURN SOUTH OF JACK LONDON BLVD. (ELEVATION = 408.804). ELEVATIONS SHOWN HEREON ARE BASED ON CITY OF LIVERMORE 2K DATUM.

BASIS OF BEARINGS:
THE BEARING OF S89°35'42"E TAKEN ON THE MONUMENT LINE OF W JACK LONDON BOULEVARD WAS TAKEN AS THE BASIS FOR ALL BEARINGS SHOWN HEREON.

DEVELOPER
OVERTON MOORE PROPERTIES
ATTN: TIMUR TECIMER
19700 S VERMONT AVE., SUITE 101
TORRANCE, CA 90502
310-354-2460

CIVIL ENGINEER
KIER & WRIGHT CIVIL ENGINEERS & SURVEYORS, INC.
ATTN: ADAM MAHONEY, P.E.
2850 COLLIER CANYON ROAD
LIVERMORE, CA 94551
925-245-8788

GEOTECHNICAL ENGINEER
CORNERSTONE EARTH GROUP INC
DAHN T. TRAN P.E.
1259 OAKMEAD PARKWAY
VALE, CA 94085
15-4600 x 108

1263

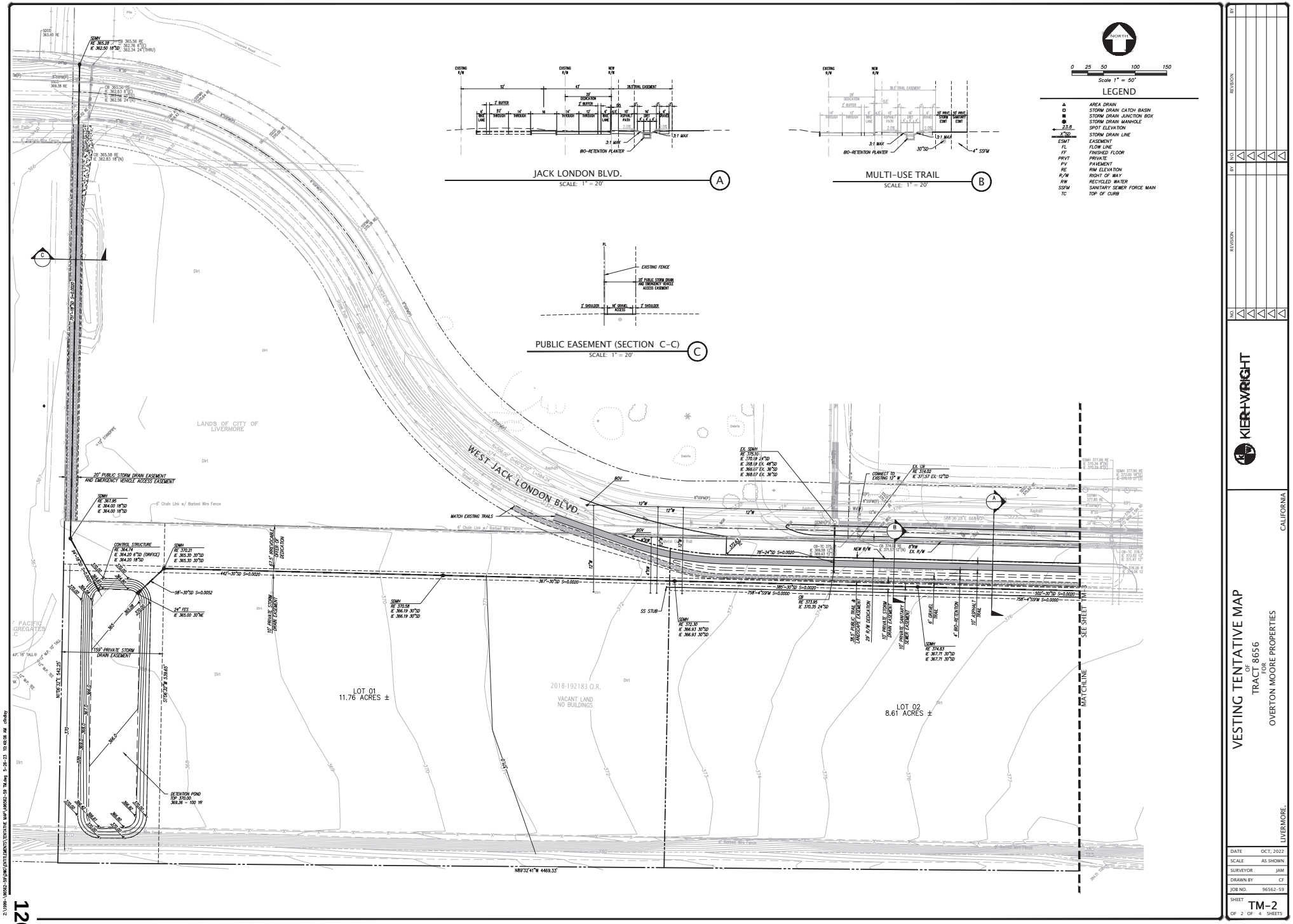
REVISION BY NO.

REVISION BY NO.

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

VESTING TENTATIVE MAP – COVER SHEET
OF
TRACT 8656
FOR
OVERTON MOORE PROPERTIES
LIVERMORE, CALIFORNIA

DATE	OCT, 2022
SCALE	AS SHOWN
SURVEYOR	JAM
DRAWN BY	CF
JOB NO.	96562-59
SHEET	TM-1
OF 1 OF	4 SHEETS



KIER+WRIGHT

CALIFORNIA

VESTING TENTATIVE MAP

OF

TRACT 8656

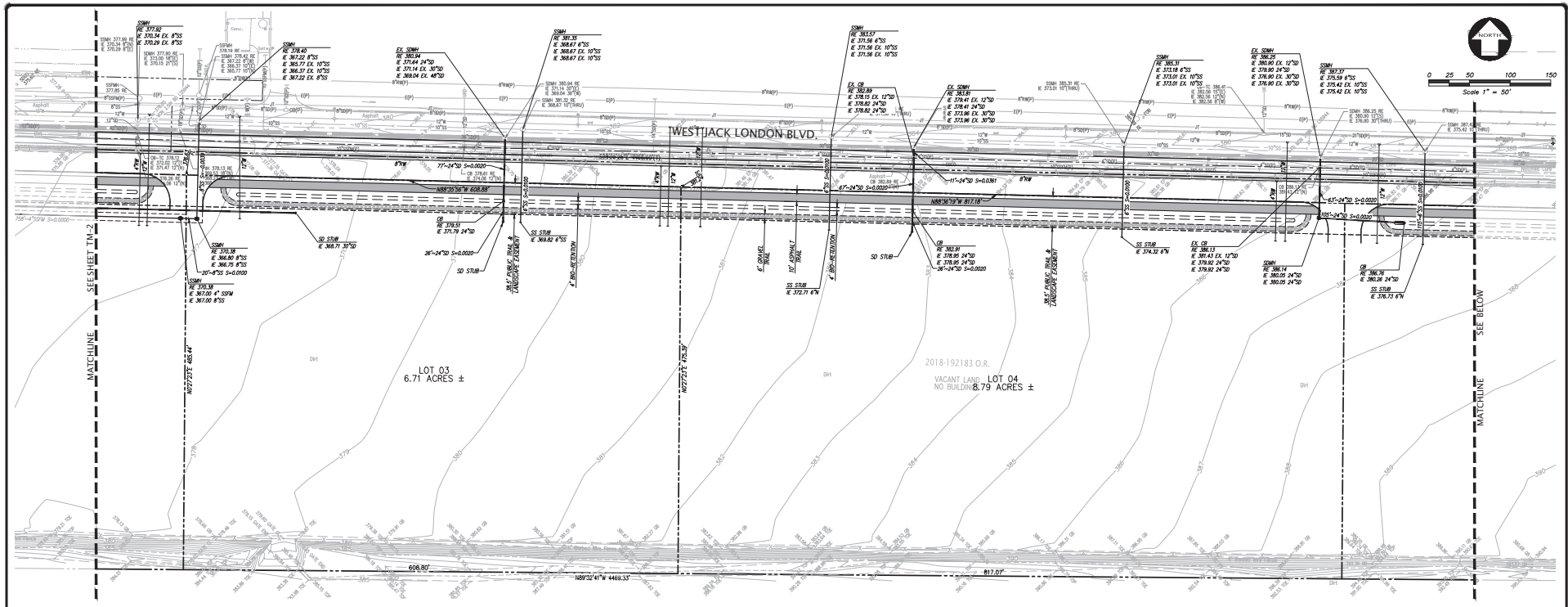
FOR

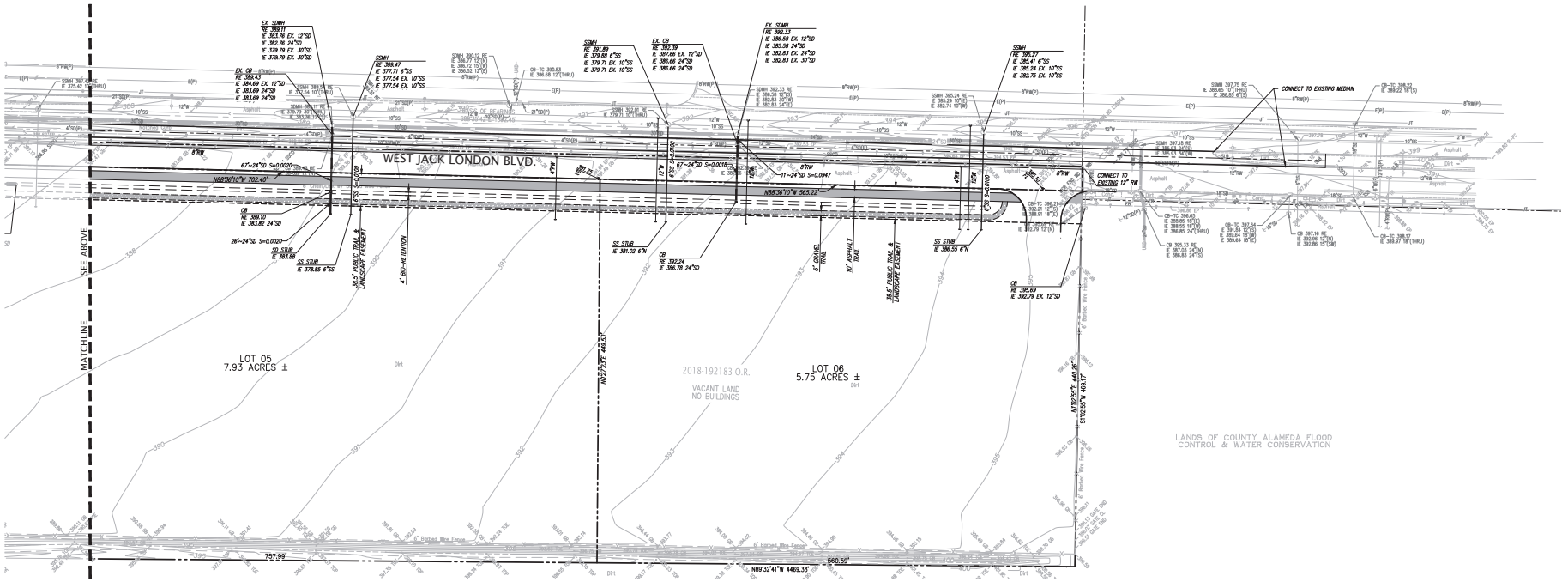
OVERTON MOORE PROPERTIES

LIVERMORE, CALIFORNIA

DATE	OCT, 2022
SCALE	AS SHOWN
SURVEYOR	JAM
DRAWN BY	CF
JOB NO.	96562-59
SHEET	TM-2
OF	2 OF 4 SHEETS

ATTACHMENT 8

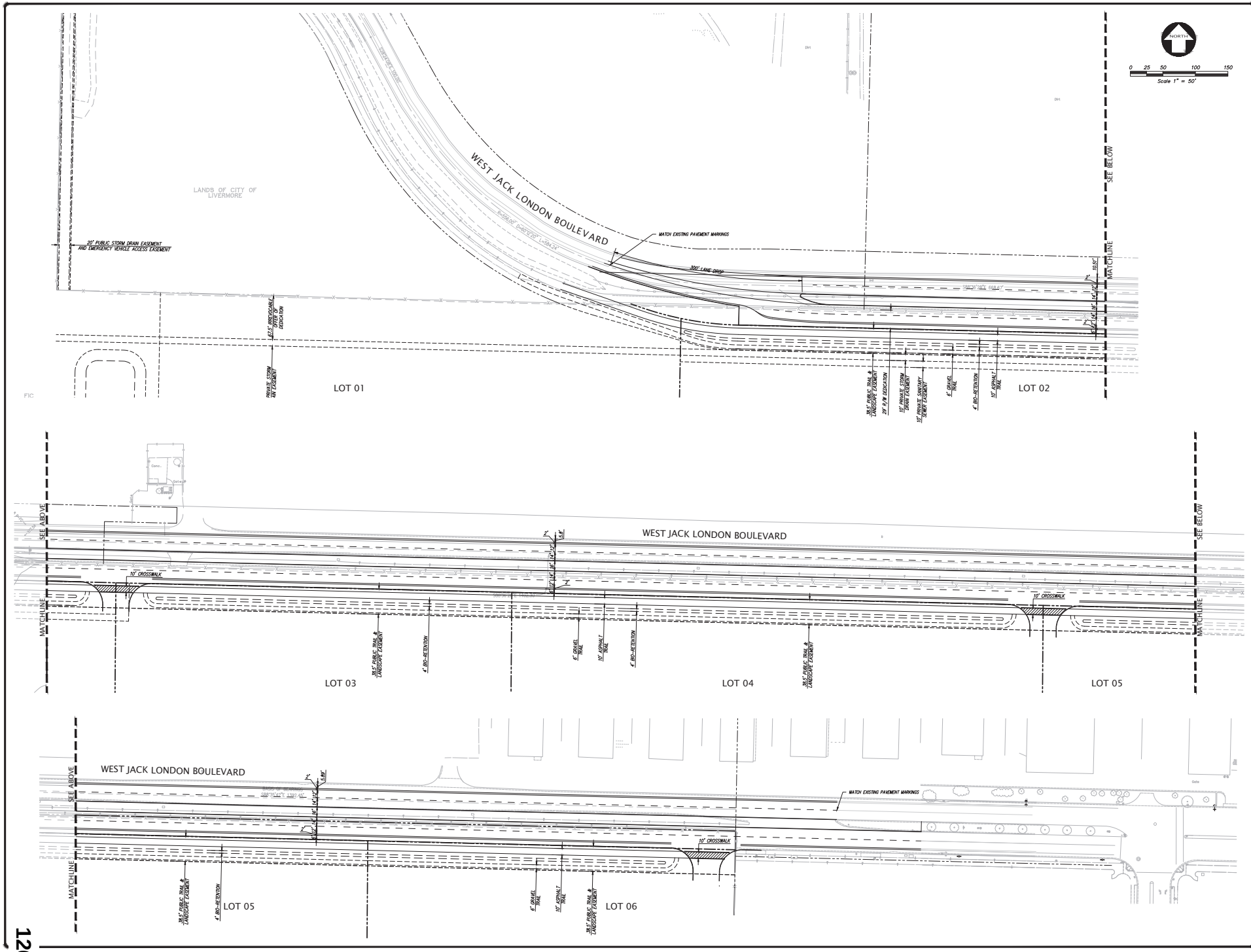




KIER+WRIGHT

VESTING TENTATIVE MAP
OF
TRACT 8656
FOR
OVERTON MOORE PROPERTIES
LIVERMORE, CALIFORNIA

DATE	OCT, 2022
SCALE	AS SHOWN
SURVEYOR	JAM
DRAWN BY	CF
JOB NO.	96562-59
SHEET	TM-3
OF	OF 4 SHEETS

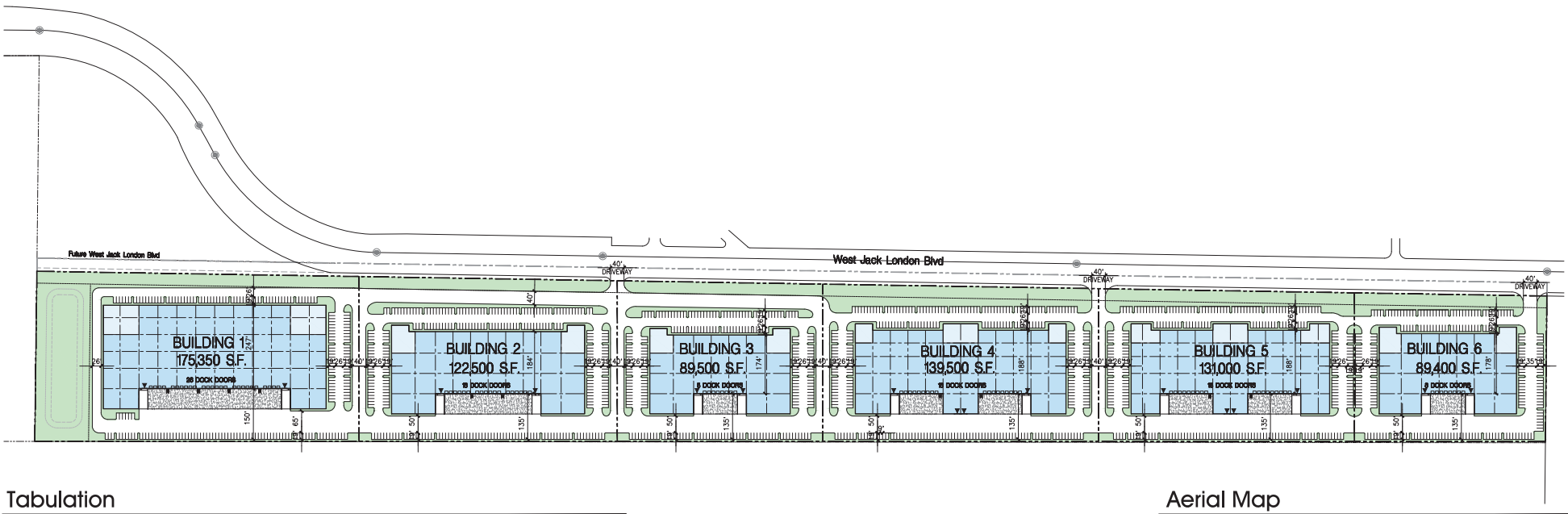


KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

VESTING TENTATIVE MAP – STRIPING PLAN
OF
TRACT 8656
FOR
OVERTON MOORE PROPERTIES
LIVERMORE, CALIFORNIA

DATE	OCT, 2022
SCALE	AS SHOWN
SURVEYOR	JAM
DRAWN BY	CF
JOB NO.	96562-59
SHEET	TM-4
OF 4 OF	4 SHEETS

CAUTION: IF THIS SHEET IS NOT 30"X42", IT IS A REDUCED PRINT

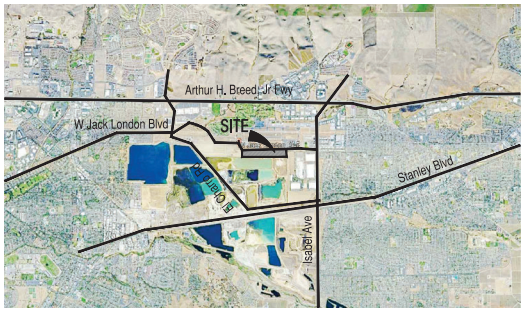


Tabulation

	BLDG.1	BLDG.2	BLDG.3	BLDG.4	BLDG.5	BLDG.6	TOTAL
SITE AREA							
In s.f.	473,671	367,700	285,788	363,649	337,531	256,615	2,084,953 s.f.
In acres	10.87	8.44	6.56	8.35	7.75	5.89	47.86 ac
BUILDING AREA							
Office	20,000	10,000	6,000	10,000	10,000	6,000	62,000 s.f.
Industrial	155,350	112,500	83,500	129,500	121,000	83,400	685,250 s.f.
TOTAL	175,350	122,500	89,500	139,500	131,000	89,400	747,250 s.f.
COVERAGE	37.0%	33.3%	31.3%	38.4%	38.8%	34.8%	35.8%
AUTO PARKING REQUIRED							
Office: 1/300 s.f.	67	33	20	33	33	20	207 stalls
Industrial 1/1,200 s.f.	129	94	70	108	101	70	571 stalls
TOTAL	196	127	90	141	134	90	778 stalls
CLIENT REQUIRED AUTO PARKING							
Standard 2/1000 s.f.	351	245	177	279	256	176	1,484 stalls
AUTO PARKING PROVIDED							
Standard (9' x 19')	204	280	225	287	268	227	1,491 stalls

Note: This is a conceptual plan. It is based on preliminary information which is not fully verified and may be incomplete. It is meant as a comparative aid in examining alternate development strategies and any quantities indicated are subject to revision as more reliable information becomes available.

Aerial Map



Legend

- POTENTIAL OFFICE
- INDUSTRIAL
- LANDSCAPE
- ▼ DRIVE THRU DOOR

north

1" = 120'
0 120' 240' 360'

Conceptual Site Plan
Jack London Blvd.

Livermore, CA

August 18, 2023 / Job #20061
Scheme 14

HPA architecture
18831 Bardeen Ave. - Ste. #100
Irvine, CA 92612
949) 863-1770
www.hparchs.com

OMP
OVERTON MOORE PROPERTIES

OAKS BUSINESS PARK

LIVERMORE, CALIFORNIA

SHEET INDEX

GENERAL
DAB-A0.1 TITLE SHEET

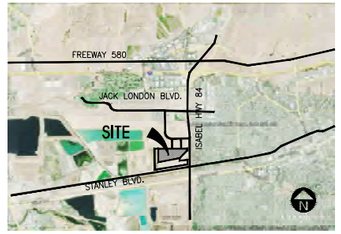
ARCHITECTURAL
0-DAB-A1.0 OVERALL SITE PLAN
0-DAB-A1.0A FENCING PLAN
0-DAB-A1.0F FIRE ACCESS SITE PLAN
0-DAB-A1.0T TRUCK TURN SITE PLAN
1-DAB-A1.1 OVERALL SITE PLAN
1-DAB-A1.2 ENLARGED PATIO PLAN & ELEVATION
1-DAB-A2.1 OVERALL FLOOR PLAN
1-DAB-A2.10 OVERALL ROOF PLAN
1-DAB-A3.1 ELEVATIONS
2-DAB-A1.1 OVERALL SITE PLAN
2-DAB-A1.2 ENLARGED PATIO PLAN & ELEVATION
2-DAB-A2.1 OVERALL FLOOR PLAN
2-DAB-A2.10 OVERALL ROOF PLAN
2-DAB-A3.1 ELEVATIONS
DAB-A4.1 SIGHT LINE
DAB-A4.2 SIGHT LINE
DAB-A4.3 SIGHT LINE
DAB-A4.4 SIGHT LINE
DAB-A4.5 SIGHT LINE
DAB-AD.1 DETAILS
DAB-AD.2 DETAILS
DAB-AD.3 DETAILS

CIVIL
C1.0 COVER SHEET
C1.1 TYPICAL SECTIONS
C2.0 TOPOGRAPHIC SURVEY
C2.1 TOPOGRAPHIC SURVEY
C3.0 PRELIMINARY GRADING AND DRAINAGE PLAN
C3.1 PRELIMINARY GRADING AND DRAINAGE PLAN
C3.2 ISABEL AV - HWY 84 TRAIL CROSSINGS - OPTION 01
C3.3 ISABEL AV - HWY 84 TRAIL CROSSINGS - OPTION 02
C4.0 PRELIMINARY UTILITY PLAN
C4.1 PRELIMINARY UTILITY PLAN
C5.0 STORM WATER QUALITY CONTROL PLAN
C6.0 TRUCK TURNING RADIUS PLAN

LANDSCAPE
LC1.1 PRELIMINARY LANDSCAPE PLAN
LC1.2 PRELIMINARY LANDSCAPE PLAN
LC1.3 PRELIMINARY LANDSCAPE PLAN

PHOTOMETRIC
E-FC PHOTOMETRIC SITE PLAN

VICINITY MAP



PROPERTY OWNER

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

APPLICANT'S REPRESENTATIVE

HPA, INC.
600 GRAND AVE, STE 302
OAKLAND, CA 94610
CONTACT: JUN LEE
PHONE: 510-390-2126

ARCHITECT

HPA, INC.
600 GRAND AVE, STE 302
OAKLAND, CA 94610
CONTACT: JUN LEE
PHONE: 510-390-2126

CIVIL

KIER & WRIGHT
2850 COLLIER CANYON ROAD
LIVERMORE, CA 94551
CONTACT: ADAM MAHONEY
PHONE: 925-412-3053

LANDSCAPE

GREEN DESIGN
1464 POPINJAY DRIVE,
RENO, NEVADA 89509
CONTACT: BARBARA HATCH
PHONE: 775-829-1364

PROJECT REPRESENTATIVES

ADDRESS OF THE PROPERTY

LIVERMORE, CA

ZONING

PROPOSED ZONING DESIGNATION – INDUSTRIAL (PD)

LEGAL DESCRIPTION

SEE CIVIL PLANS

PROJECT DATA

BUILDING OCCUPANCY:	B, F-1 & S-1
CONSTRUCTION TYPE:	III – B
FIRE SPRINKLERS:	YES (ESFR)
ACTUAL ROOF HEIGHT:	43'-11"(MAX)
ALLOWABLE PARAPET HEIGHT:	75'-0"
ACTUAL STORIES:	1 STORY
ALLOWABLE STORIES:	2 STORIES
ACTUAL AREA:	
BUILDING 1:	470,526 S.F.
BUILDING 2:	288,747 S.F.
ALLOWABLE AREA (BASIC):	B = 76,000 S.F.
	S1= 70,000 S.F.
	F1= 48,000 S.F.
ACTUAL AREA INCREASED ALLOWABLE	UNLIMITED PER CBC. 507.1 60' MIN. YARD ON 4 SIDES

TABULATION

SITE AREA	BLDG 1	BLDG 2	TOTAL
	1,047,195	737,664	1,784,748 s.f.
	24.04	16.93	40.97 ac
BUILDING AREA			
Office	10,000	13,000	23,000 s.f.
Warehouse	460,526	273,747	736,273 s.f.
TOTAL	470,526	288,747	759,273 s.f.
COVERAGE (45% Max.)	44.9%	39.1%	42.5%
AUTO PARKING REQUIRED			
Office 1/300 s.f.	34	44	78 stalls
Others 1/1,200 s.f.	384	230	614 stalls
TOTAL	418	274	692 stalls
EV REQUIRED			
EV Capable + EVCS (20% of total)	96	64	160 stalls
- EV Capable w/ conduits only (10% of total)	[48]	[32]	
- EVCS (10% of total)	[48]	[32]	
- Standard EVCS	45	29	
- ADA EV Parking w/ EVCS (9' x 20' + 5' Aisle)	1*	1*	
- ADA EV Van Parking w/ EVCS (12' x 20' + 5' Aisle)	1	1	
- Ambulatory	1	1	
AUTO PARKING PROVIDED			
Standard (9'x 18')	162	179	341 stalls
Compact (9'x 16') 30% of total max.	115	0	115 stalls
Accessible parking (9' x 18')	5	5	10 stalls
Accessible Van (9' x 18' +8 aisle)	4	3	7 stalls
EV Capable + EVCS (20% of total)	96	64	160 stalls
- EV Capable w/ conduits only (10% of total)	[48]	[32]	
- EVCS (10% of total)	[48]	[32]	
- Standard EVCS	45	29	
- ADA EV Parking w/ EVCS (9' x 20' + 5' Aisle)	1*	1*	
- ADA EV Van Parking w/ EVCS (12' x 20' + 5' Aisle)	1	1	
- Ambulatory	1	1	
Standard Trailer (10' x 53')	97	67	164 stalls
TOTAL	479	318	797 stalls
BIKE RACKS REQUIRED/PROVIDED			
Long-term (5%)	25	16	41
Short-term (5%)	25	16	41
ZONING DESIGNATION/CODE			
Proposed Zoning Designation - Industrial (IC)			
SETBACKS			
Building			
Isabel Rd / 84 - 40' (increased to allow 40' max. ht.)			
New Interior St - 30' (increased to allow 40' max. ht.)			
Rear/Side - None			
Landscape			
All required Yards shall be landscaped. If Parking lot is provided between building and street reduce LS at street by up to 10' and place removed LS at building adjacent to parking.			
MAXIMUM BUILDING HEIGHT ALLOWED			
40'			
MAXIMUM BUILDING HEIGHT REQUESTED			
50' (see 1-DAB-A3.1 & 2-DAB-A3.1 for proposed building height)			

PROJECT DATA & CODE SUMMARY

HPA architecture

hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•662•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

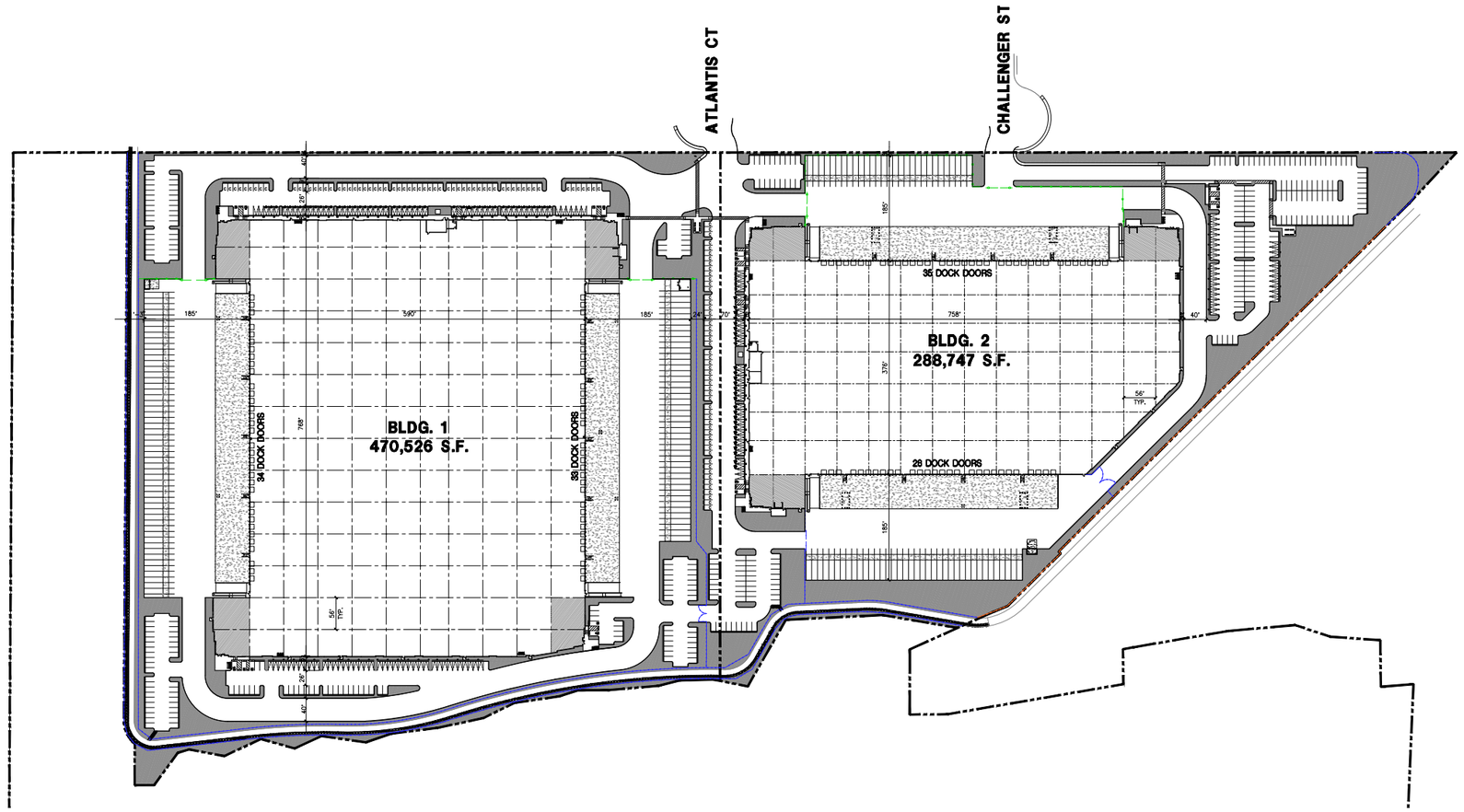
Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: TITLE SHEET

Project Number: 19177
Drawn by: TSP
Date: 09/19/2023
Revision:

Sheet: DAB-A0.1



MASTER SITE PLAN
scale: 1" = 80'-0"

SCALE: 1" = 80'-0"
0 80' 160' 240'
PLAN NORTH

SITE PLAN GENERAL NOTES

1. THE SITE PLAN BASED ON THE SOILS REPORT PREPARED BY CORNERSTONE, NOVEMBER 23, 2021, PROJECT NUMBER 681-7-1
2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES
5. PROVIDE STRUCTURAL CALCULATION AND CONSTRUCTION ANCHORAGE DETAIL FOR TRANSFORMER PRIOR TO INSTALLATION.
6. SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS.
9. SEE "C" DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY W/ 1/20 MAX. SLOPE. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". FINISH TO BE A MEDIUM BROOM FINISH
11. U.N.O. PROVIDE KNOX BOXES AT ALL OFFICE ENTRANCES.
12. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
13. ON-SITE FIRE MAIN, FIRE SPRINKLER, AND SPRINKLER MONITORING SYSTEM SHALL BE SUBMITTED SEPARATELY TO THE FIRE DEPARTMENT FOR REVIEW AND PERMITTING.
14. ALL VERTICAL MOUNTING POLES OF FENCING SHALL BE CAPPED.
15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB
16. ALL INTERIOR AND EXTERIOR WALK SURFACES TO BE NON-SLIP TYPE

SITE PLAN GENERAL NOTES

- CONCRETE PAVING. SEE "C" DRWGS. FOR THICKNESS
- STANDARD PARKING STALL 9' X 18' (16' WITH 2' OVERHANG)
- STANDARD PARKING STALL W/ EVCS INSTALLED
- STANDARD PARKING STALL W/ CONDUITS ONLY
- TRAILER PARKING (10' X 53')
- LANDSCAPED AREA
- NON-ACCESSIBLE PATH
- COMPACT PARKING STALL 9' X 16' (14' WITH 2' OVERHANG)
- ACCESSIBLE PARKING STALL (9' X 18') ACCESSIBLE AISLE SEE DETAIL 11/A0.1
- ACCESSIBLE PARKING (VAN) STALL (9' X 18') + 8' W/ ACCESSIBLE AISLE
- PATH OF TRAVEL. MINIMUM WIDTH TO BE 4'. SLOPE NOT TO EXCEED 5% IN THE DIRECTION OF TRAVEL AND CROSS SLOPE NOT TO EXCEED 2%. SEE CIVIL

VICINITY MAP

PROJECT DATA

	BLDG. 1	BLDG. 2	TOTAL
SITE AREA	1,047,191	737,554	1,784,745 s.f.
	24.04	16.93	40.97 ac.
BUILDING AREA			
Office	10,000	13,000	23,000 s.f.
Warehouse	460,526	275,747	736,273 s.f.
TOTAL	470,526	288,747	759,273 s.f.
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AUTO PARKING REQUIRED			
Office: 1/300 s.f.	34	44	78 stalls
Other: 1/1,200 s.f.	384	230	614 stalls
TOTAL	418	274	692 stalls
EV REQUIRED			
EV Capable + EVCS (20% of total)	96	64	160 stalls
- EV Capable w/ conduits only (10% of total)	[48]	[32]	
- EVCS (10% of total)	[48]	[32]	
~ Standard EVCS	45	29	
~ ADA EV Parking w/ EVCS (9' x 20' + 5' Aisle)	1	1	
~ ADA EV Van Parking w/ EVCS (12' x 20' + 5' Aisle)	1	1	
~ Ambulatory	1	1	
AUTO PARKING PROVIDED			
Standard (9' X 18')	152	119	341 stalls
Compact (Ex. 16') 30% of total max	115	81	196 stalls
Accessible parking (9' X 18')	9	5	10 stalls
Accessible Van (9' x 18' +8' aisle)	4	3	7 stalls
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- EV Capable w/ conduits only (10% of total)	[48]	[32]	
- EVCS (10% of total)	[48]	[32]	
~ Standard EVCS	45	29	
~ ADA EV Parking w/ EVCS (9' x 20' + 5' Aisle)	1	1	
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~ Ambulatory	1	1	
Standard Trailer (10' x 53')	97	67	164 stalls
TOTAL	479	318	797 stalls
BIKE PARKING REQUIRED/PROVIDED			
Long-term (5%)	25	16	41
Short-term (5%)	26	16	41
ZONING ORDINANCE FOR CITY			
Proposed Zoning Designation - Industrial (IC)			
SETBACKS			
Building			
Indust Rd / SH - 40' (increased to allow 40' max. ht.)			
New Interior St - 30' (increased to allow 40' max. ht.)			
Rear/Side - None			
Landscape			
All required Yards shall be landscaped. If Parking lot is provided between building and street reduce LS at street by up to 10' and place removed LS at building adjacent to parking.			
MAXIMUM BUILDING HEIGHT ALLOWED			
40'			
MAXIMUM BUILDING HEIGHT REQUESTED			
SU 3388.1 SU+0.1 A-1.1 & J SU+0.1 A-1.1 TSP (proposed building height)			

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•662•2113
email: hpa@hparchs.com

Developer
LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:
OAKS BUSINESS PARK
LIVERMORE, CA

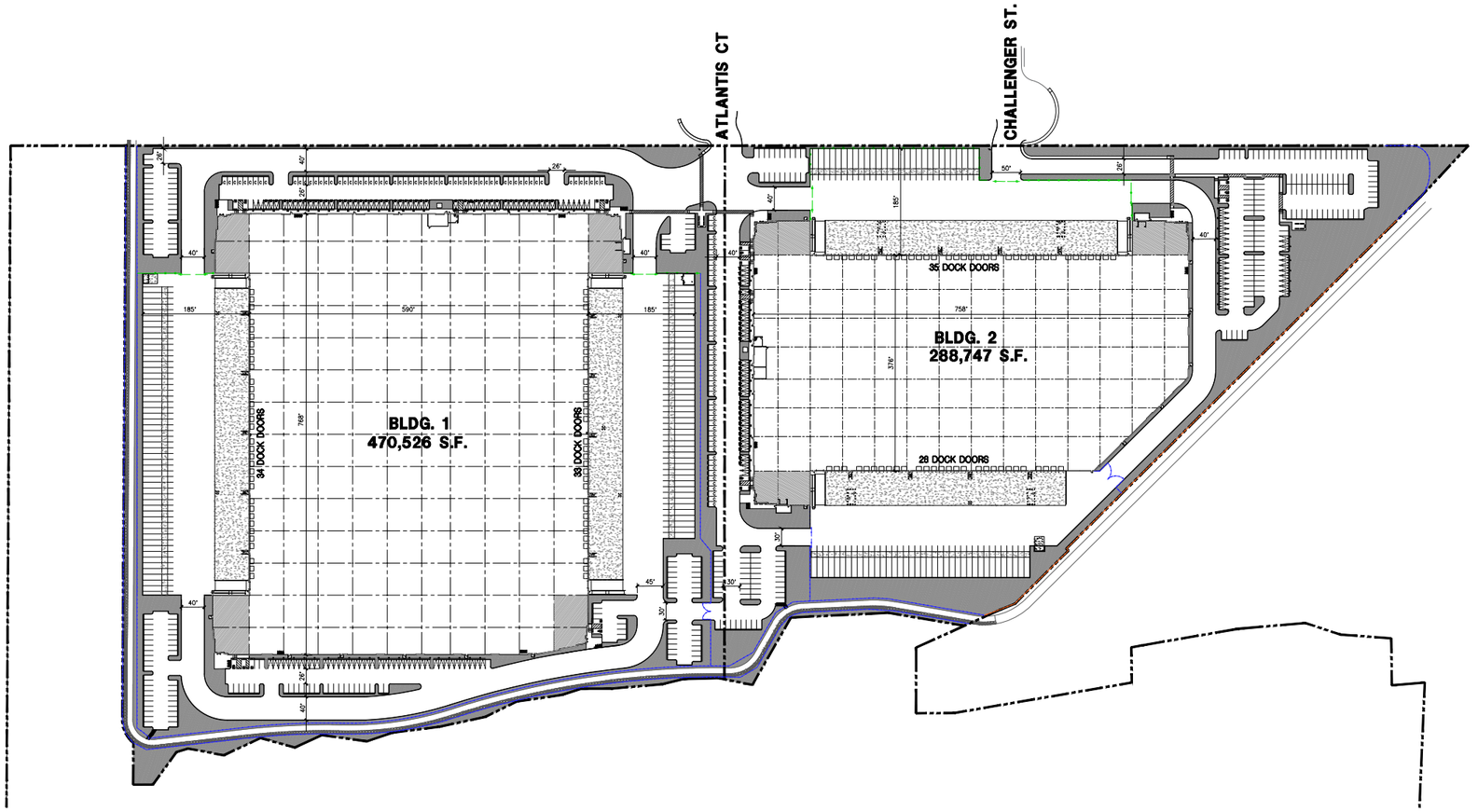
Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: MASTER SITE PLAN

Project Number: 19177
Drawn by: TSP
Date: 09/19/2023
Revision:

Sheet:
0-DAB-A1.0



MASTER SITE PLAN A
scale: 1" = 80'-0"

SCALE: 1" = 80'-0"
0 80' 160' 240'
PLAN NORTH

NEW METAL FENCE AND GATE

EXISTING CHAIN LINK FENCE

NEW CHAIN LINK FENCE AND GATE

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•662•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

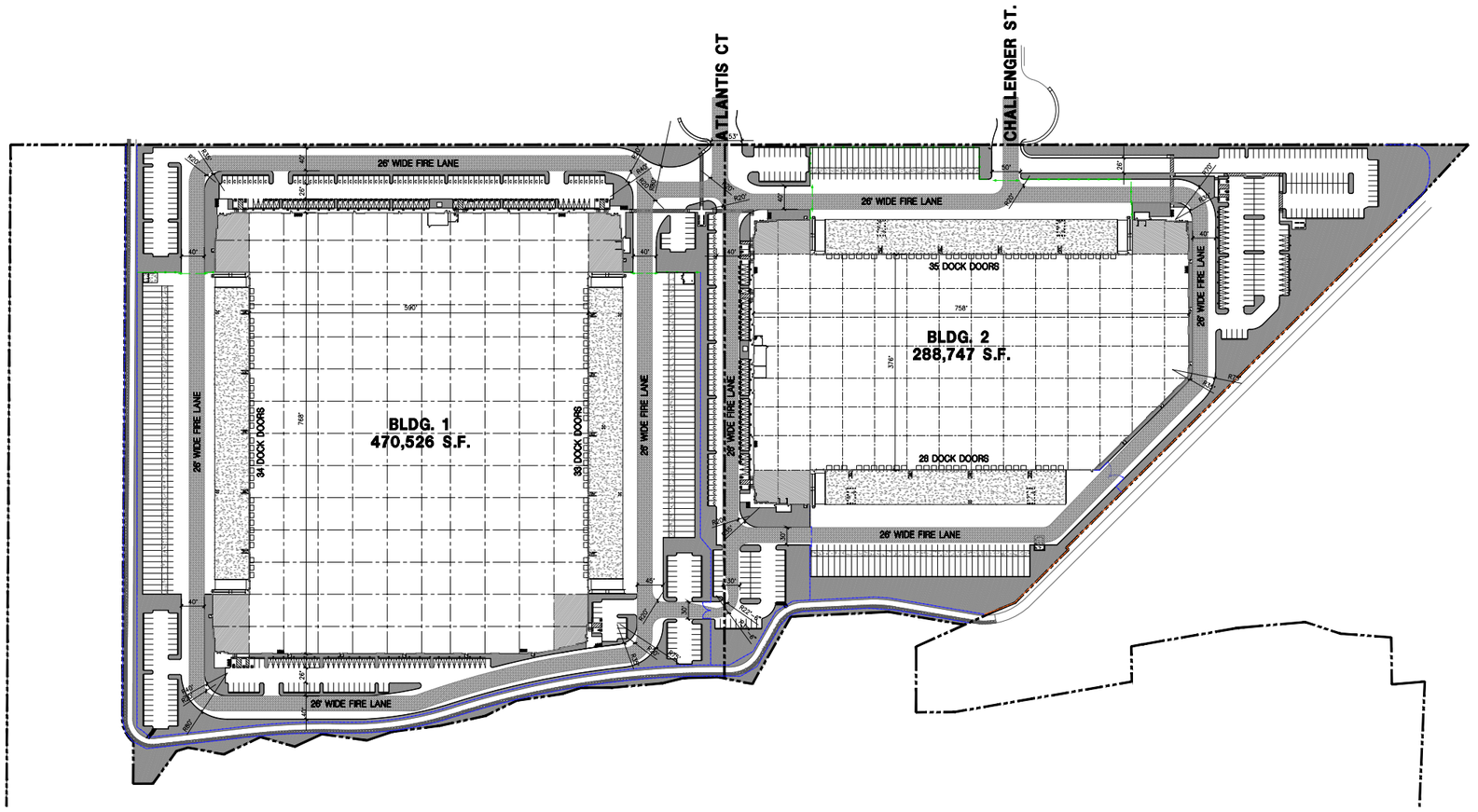
Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
COLOR/SIGN	-

Title: FENCING PLAN

Project Number: 19177
Drawn by: TSP
Date: 09/19/2023
Revision:

Sheet:
0-DAB-A1.0A



MASTER SITE PLAN (A) scale: 1" = 80'-0"

SCALE: 1" = 80'-0"
0 80' 160' 240'
PLAN NORTH

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•662•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

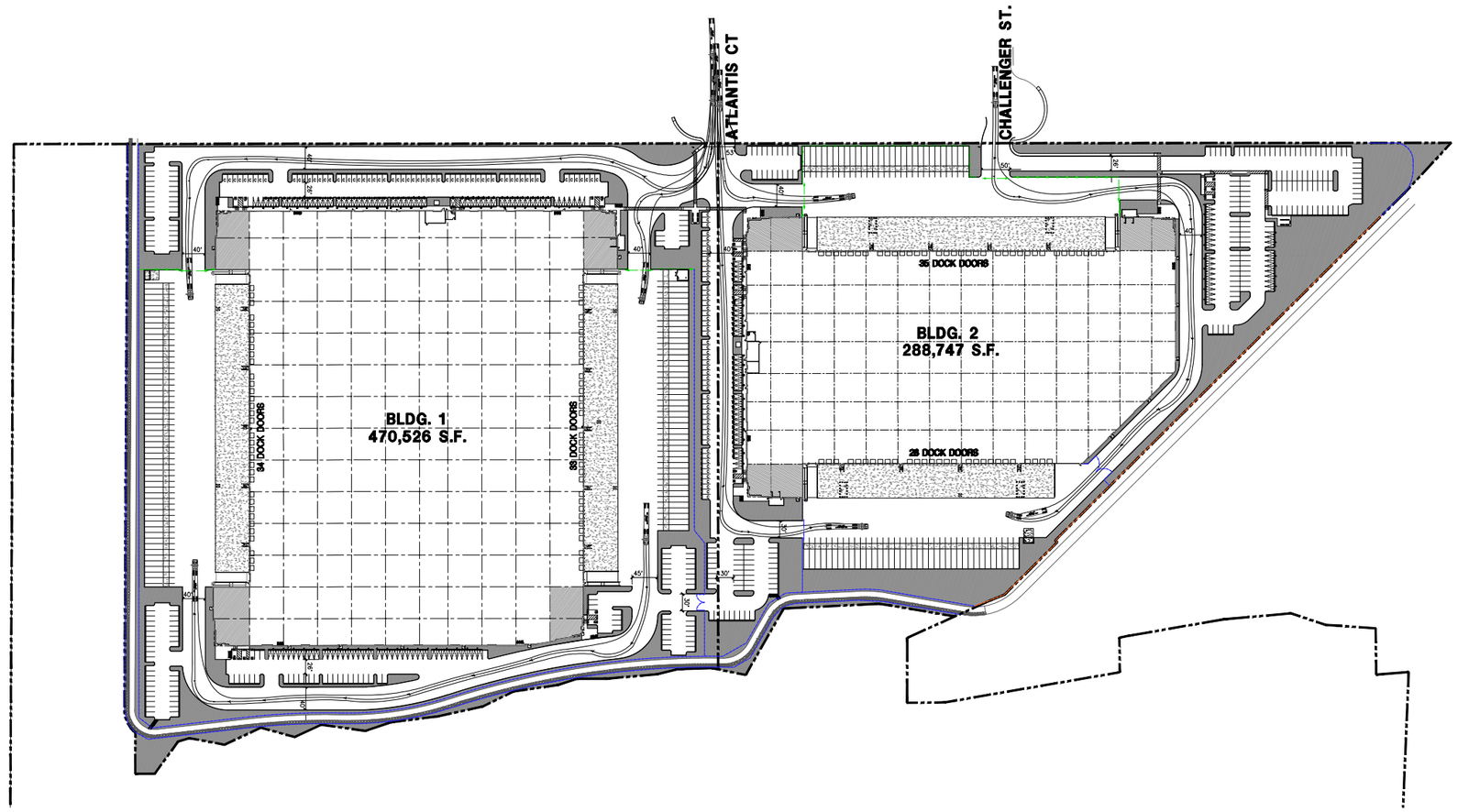
Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title:FIRE ACCESS SITE PLAN

Project Number: 19177
Drawn by: TSP
Date: 09/19/2023
Revision:

Sheet:
0-DAB-A1.0F



MASTER SITE PLAN scale: 1" = 80'-0" (A)

SCALE: 1" = 80'-0"
0 80' 160' 240'
PLAN NORTH

HPA architecture

hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•662•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGR	-

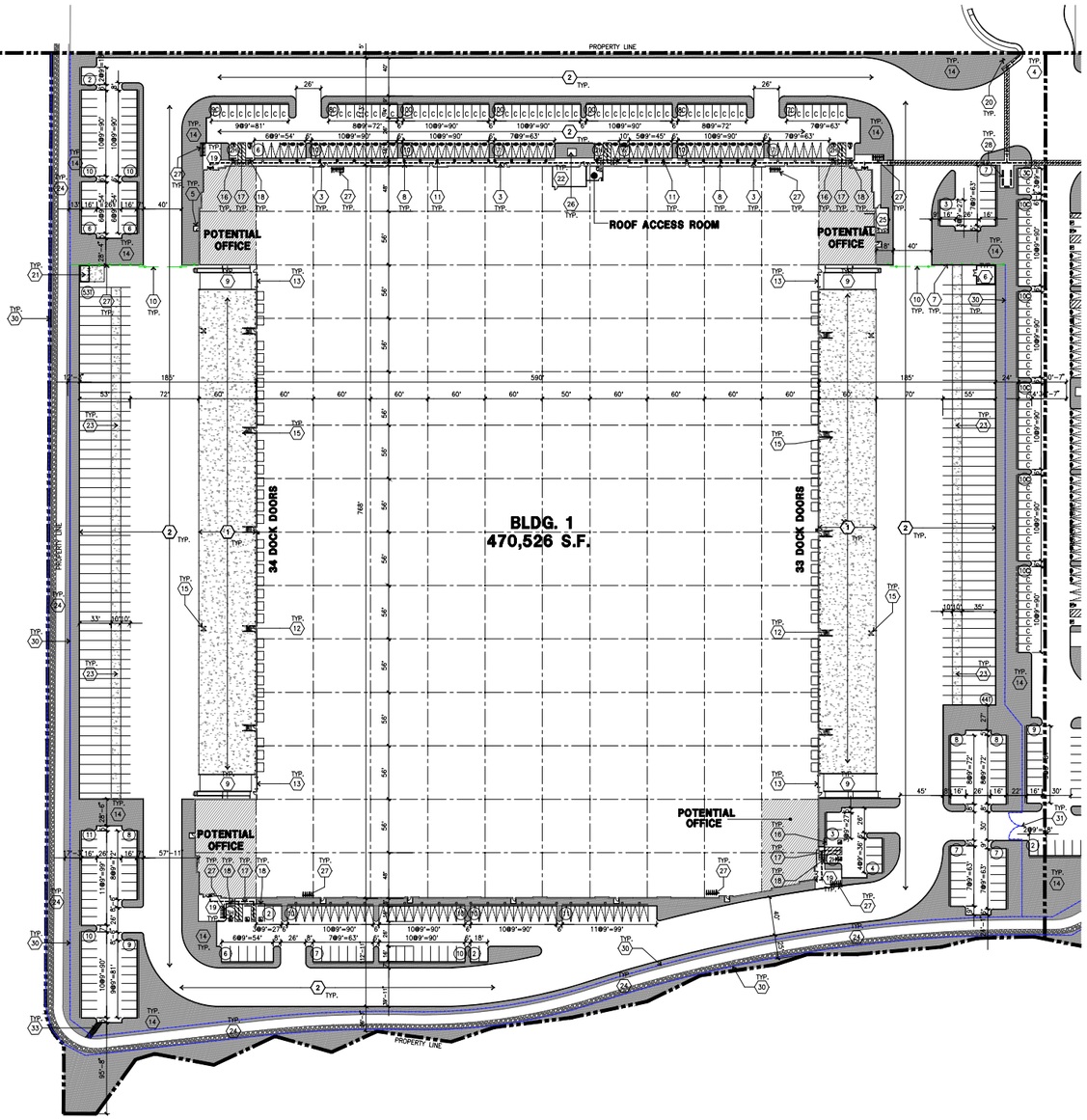
Title:TRUCK TURN SITE PLAN

Project Number:	19177
Drawn by:	TSP
Date:	09/19/2023

Revision:

Sheet:

0-DAB-A1.0T



OVERALL SITE PLAN (A) scale: 1" = 50'-0"

SCALE: 1" = 50'-0" (0, 50', 100', 150') TRUE NORTH

VICINITY MAP

SITE PLAN KEYNOTES

1. HEAVY BROOM FINISH CONCRETE PAVEMENT.
2. ASPHALT CONCRETE (AC) PAVING
3. ACCESSIBLE PATH OF TRAVEL
4. DRIVEWAY APRONS
5. 5'-0"X5'-0"X4" THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH SLOPE TO BE 1/4" : 12" MAX.
6. INTERIOR PUMP ROOM/EXTERIOR PUMP HOUSE, SEE SITE PLAN
7. 8' HIGH METAL FENCE.
8. CONCRETE WALKWAY, MEDIUM BROOM FINISH.
9. CONCRETE RAMP WITH CONCRETE GUARD WALL.
10. 8' HIGH METAL GATE.
11. ELECTRIC VEHICLE CHARGER.
12. EXTERIOR METAL STEEL STAIR.
13. 12' x 14' DRIVE-IN DOOR
14. LANDSCAPE.
15. CONC. FILLED GUARD POST 6" DIA. U.N.O. 48" H.
16. PRE-CAST CONC. WHEEL STOP.
17. TRUNCATED DOMES.
18. ACCESSIBLE PARKING STALL SIGN.
19. HARDSCAPE AT ENTRANCE. SEE "L" DRAWINGS.
20. ACCESSIBLE ENTRY SIGN.
21. TRASH ENCLOSURE, SEE DAB-AD.1.
22. ELECTRICAL ROOM.
23. CONCRETE DOLLY PAD. SEE SITE PLAN FOR WIDTH AND "C" DRAWINGS.
24. TRAIL.
25. EXTERIOR EMPLOYEE BREAK ROOM.
26. APPROXIMATE LOCATION OF TRANSFORMER. CONTRACTOR TO VERIFY
27. BIKE RACKS.
28. OUTDOOR BREAK AREA.
29. 10' HIGH SCREENING WALL.
30. 8' HIGH CHAIN LINK FENCE.
31. 8' HIGH CHAIN LINK GATE.
32. EXISTING CHAIN LINK FENCE.
33. DG PAVING PATH WITH MAN GATE

SITE PLAN GENERAL NOTES

1. THE SITE PLAN BASED ON THE SOILS REPORT PREPARED BY CORNERSTONE, NOVEMBER 23, 2021, PROJECT NUMBER 681-7-1
2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE.
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES
5. PROVIDE STRUCTURAL CALCULATION AND CONSTRUCTION ANCHORAGE DETAIL FOR TRANSFORMER PRIOR TO INSTALLATION.
6. SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS.
9. SEE "C"DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY W/ 1:20 MAX. SLOPE. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". FINISH TO BE A MEDIUM BROOM FINISH
11. U.N.O. PROVIDE KNOX BOXES AT ALL OFFICE ENTRANCES.
12. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
13. ON-SITE FIRE MAIN, FIRE SPRINKLER, AND SPRINKLER MONITORING SYSTEM SHALL BE SUBMITTED SEPARATELY TO THE FIRE DEPARTMENT FOR REVIEW AND PERMITTING.
14. ALL VERTICAL MOUNTING POLES OF FENCING SHALL BE CAPPED.
15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB
16. ALL INTERIOR AND EXTERIOR WALK SURFACES TO BE NON-SLIP TYPE

SITE PLAN GENERAL NOTES

- CONCRETE PAVING. SEE "C" DRWGS. FOR THICKNESS
- STANDARD PARKING STALL 9' X 18' (16' WITH 2' OVERHANG)
- STANDARD PARKING STALL W/ EVCS INSTALLED
- STANDARD PARKING STALL W/ CONDUITS ONLY
- TRAILER PARKING (10' X 53')
- LANDSCAPED AREA
- NON-ACCESSIBLE PATH
- COMPACT PARKING STALL 9' X 16' (14' WITH 2' OVERHANG)
- ACCESSIBLE PARKING STALL (9' X 18') ACCESSIBLE AISLE SEE DETAIL 11/AD.1
- ACCESSIBLE PARKING (VAN) STALL (9' X 18') + 8' W/ ACCESSIBLE AISLE
- PATH OF TRAVEL: MINIMUM WIDTH TO BE 4', SLOPE NOT TO EXCEED 5% IN THE DIRECTION OF TRAVEL AND CROSS SLOPE NOT TO EXCEED 2%, SEE CIVIL FOR GRADING PLAN

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•662•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

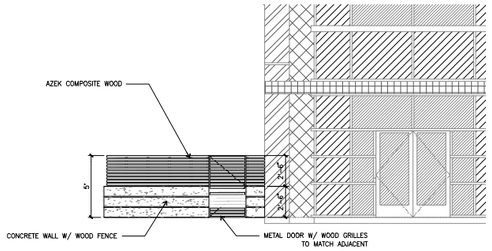
CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE/LIFE	-
SOILS/GEO	-

Title: OVERALL SITE PLAN

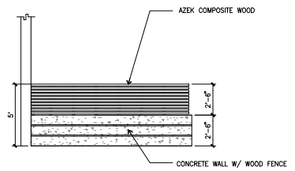
Project Number:	19177
Drawn by:	TSP
Date:	09/19/2023

Revision:

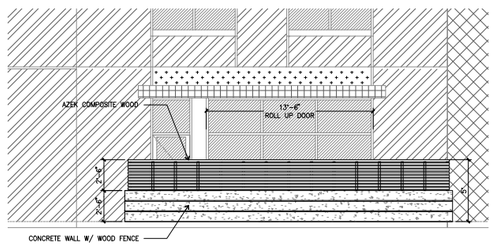
Sheet: 1-DAB-A1.1



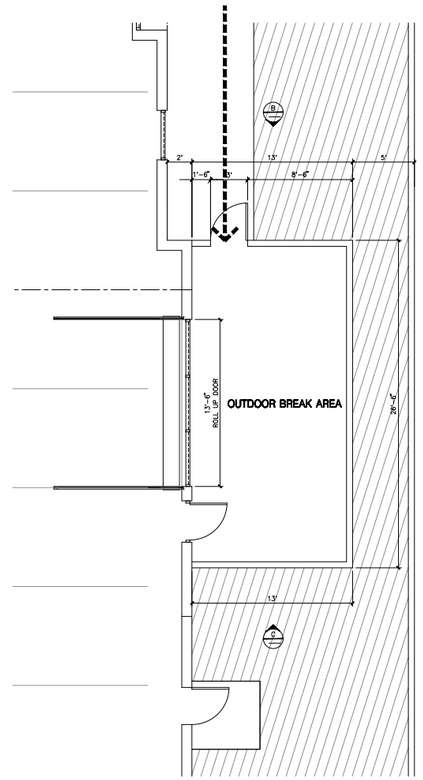
PATIO ELEVATION - NORTH (B)
scale: 1/4" = 1'-0"



PATIO ELEVATION - SOUTH (C)
scale: 1/4" = 1'-0"



PATIO ELEVATION - EAST (D)
scale: 1/4" = 1'-0"



ENALRGED PATIO PLANS (A)
scale: 1/4" = 1'-0"

SCALE: 1/4" = 1'-0"
0 4' 8' 12'
TRUE NORTH

HPA architecture

hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•662•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: ENLARGED PATIO PLAN & ELEVATION

Project Number:	19177
Drawn by:	TSP
Date:	09/19/2023

Revision:

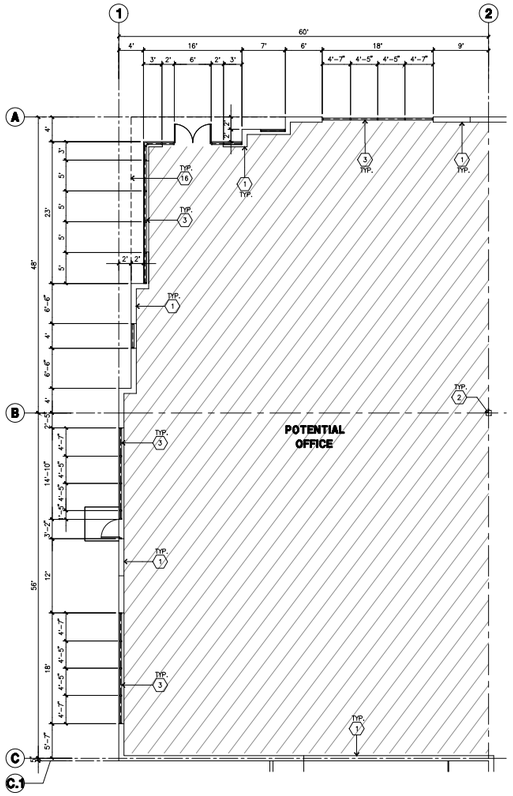
Sheet:
1-DAB-A1.2

KEYNOTES - FLOOR PLAN

1. CONCRETE TILT-UP PANEL.
2. STRUCTURAL STEEL COLUMN.
3. TYPICAL STOREFRONT SYSTEM WITH GLAZING. SEE ENLARGED PLANS AND ELEVATIONS FOR SIZE, COLOR AND LOCATIONS.
4. CONCRETE RAMP W/ 42" HIGH CONC TILT-UP GUARD WALL OR BUILDING WALL ON BOTH SIDES OF RAMP.
5. 9' X 10' DOCK DOOR, SECTIONAL O.H., STANDARD GRADE. DESIGNED TO RESIST CITY REQUIRED WIND SPEED.
6. EXTERIOR METAL STEEL STAIR.
7. 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYPICAL AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREA. FINISH TO BE MEDIUM BLOOM FINISH. SLOPE TO BE 1/4 : 12" MAX.
8. 4'X8' METAL LOUVER.
9. DOCK DOOR BUMPER.
10. 12' X 14' DRIVE THRU. SECTIONAL O.H., STANDARD GRADE. DESIGNED TO RESIST CITY REQUIRED WIND SPEED.
11. 3'-X 7' HOLLOW METAL EXTERIOR MAN DOOR. DESIGNED TO RESIST CITY REQUIRED WIND SPEED.
12. CONC. FILLED GUARD POST. 6" DIA. U.N.O.. 48"H.
13. EXTERIOR DOWNSPOUT WITH OVERFLOW SCUPPER.
14. Z GUARD.
15. ELECTRICAL ROOM.
16. METAL CANOPY ABOVE.
17. ROOF ACCESS LADDER.

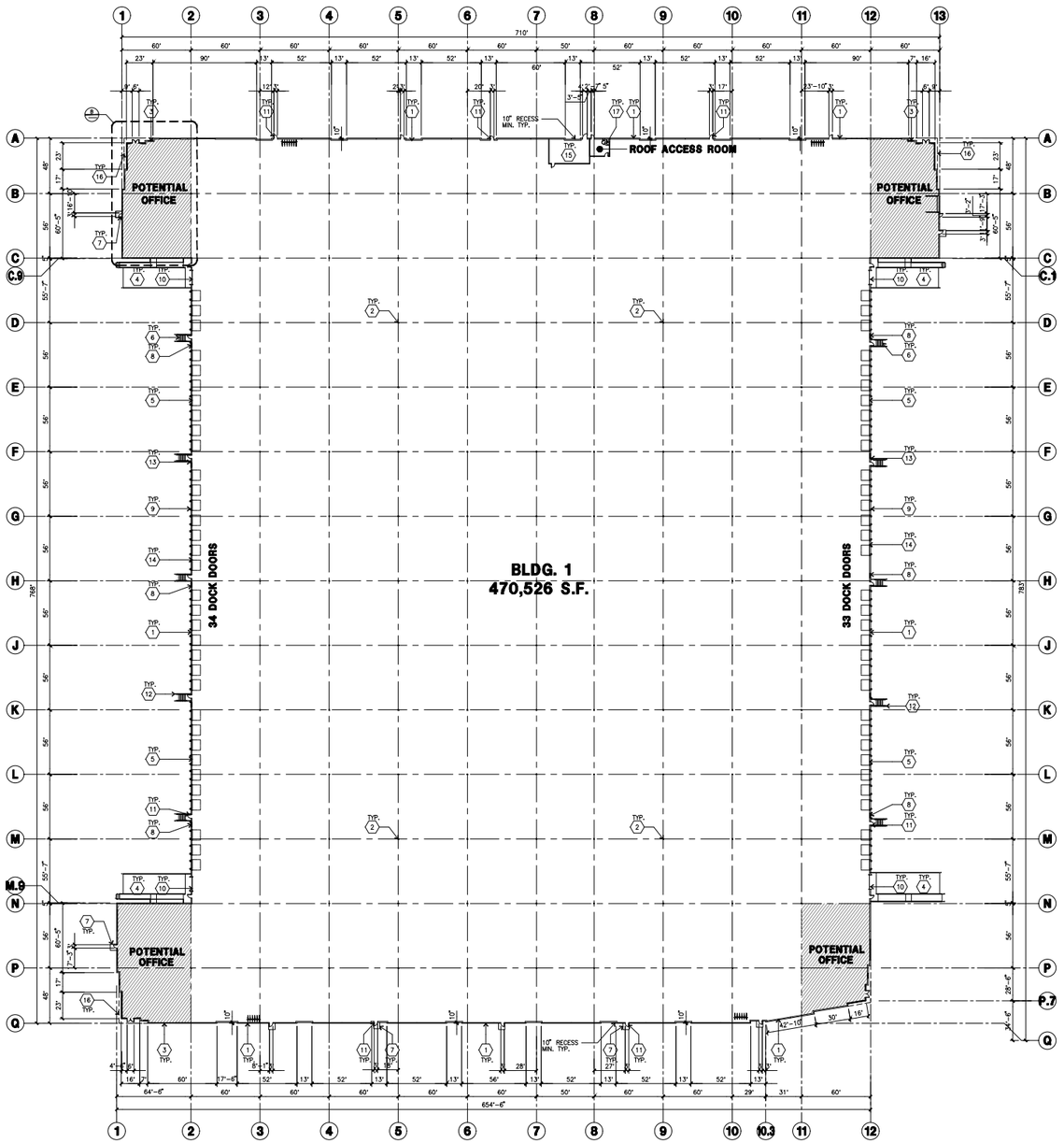
GENERAL NOTES - FLOOR PLAN

1. THIS BUILDING IS DESIGNED FOR HIGH PILE STORAGE WITH FIRE ACCESS MAN DOORS AT 125' +/-. A SEPARATE PERMIT WILL BE REQUIRED FOR ANY RACKING/CONVEYER SYSTEMS. INSURE HEAT AND SMOKE VENTS AS REQ'D COMPLY WITH TABLE 910.3 CBC
2. FIRE HOSE LOCATIONS SHALL BE APPROVED PER FIRE DEPARTMENT.
3. SEE "C" DRAWINGS FOR FINISH SURFACE ELEVATIONS.
4. WAREHOUSE INTERIOR CONCRETE WALLS ARE PAINTED WHITE. COLUMNS ARE TO RECEIVE PRIMER ONLY. ALL CYP. BD. WALLS IN WAREHOUSE TO RECEIVE 1 COAT OF WHITE TO COVER.
5. THE BUILDING FLOOR SLAB IS FLAT/SLOPED, SEE CIVIL.
6. SLOPE POUR STRIP 1/2" TO EXTERIOR AT ALL MANDOOR EXITS. SEE "S" DRAWINGS FOR POUR STRIP LOCATION.
7. PROVIDE 6" DIA. CONCRETE BOLLARD AT ALL FIRE RISER AND UNPROTECTED INTERIOR ROOF DRAIN.
8. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE PANEL WALL, GRIDLINE, OR FACE OF STUD U.N.O.
9. SEE CIVIL DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR TO VERIFY ACTUAL UTILITY LOCATIONS. PLUMBING/ELECTRICAL COORDINATION.
10. FOR DOOR TYPES AND SIZES, SEE DETAIL SHEET A5.1. NOTE: ALL DOORS PER DOOR SCHEDULE ARE FINISH OPENINGS.
11. CONTRACTOR TO PROTECT AND KEEP THE FLOOR SLAB CLEAN. ALL EQUIPMENT TO BE DIAPERED INCLUDING CARS AND TRUCKS.
12. ALL EXIT MAN DOORS IN WAREHOUSE TO HAVE ILLUMINATED EXIT SIGN HARDWARE.
13. HIGHLY FLAMMABLE AND COMBUSTIBLE MATERIAL SHALL NOT BE USED OR STORED IN THIS BUILDING.
14. PROVIDE FIRE EXTINGUISHERS AT LOCATIONS DETERMINED BY FIRE DEPARTMENT.
15. EACH EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT". THE MOUNTING HEIGHT FOR SUCH SIGNAGE SHALL BE 60" FROM FINISH FLOOR LEVEL TO THE CENTER OF THE SIGN.
16. AFFIX AN INTERNATIONAL ACCESSIBILITY SYMBOL ON ALL ACCESSIBLE ENTRANCES PER CBC 11B-216.6
17. ALL INTERIOR AND EXTERIOR WALKING SURFACES TO BE NON-SLIP TYPE



ENLARGED FLOOR PLAN (B) scale: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"



OVERALL FLOOR PLAN (A) scale: 1" = 40'-0"

SCALE: 1" = 40'-0"

TRUE NORTH

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: OVERALL FLOOR PLAN

Project Number:	19177
Drawn by:	TSP
Date:	09/19/2023
Revision:	

Sheet: 1-DAB-A2.1

ROOF PLAN KEYNOTES

1. CONCRETE PARAPET.
2. PARAPET RETURN.
3. 60 MIL TPO SINGLE-PLY MEMBRANE ROOFING OVER DENSE DECK OVER ROOF SHEATHING.
4. 4' X 8' CURB MOUNTED SKYLIGHT.
5. ROOF HATCH.
6. EXTERIOR DOWNSPOUT WITH 2 OVERFLOW SCUPPERS.
7. STRUCTURAL JOIST.
8. INTERIOR DOWNSPOUT WITH 2 OVERFLOW SCUPPERS.

ROOF LEGEND

4' X 8' DOUBLE DOME CURB MOUNTED FIXED SKYLIGHTS SUNOPTICS SIG 4080 WS2-250 L100,250 DGZ CC1 LENSCLWH BOOMD MI FMRTG OR EQUAL ICC-ESR-2415

BUILDING PARAPET LINE

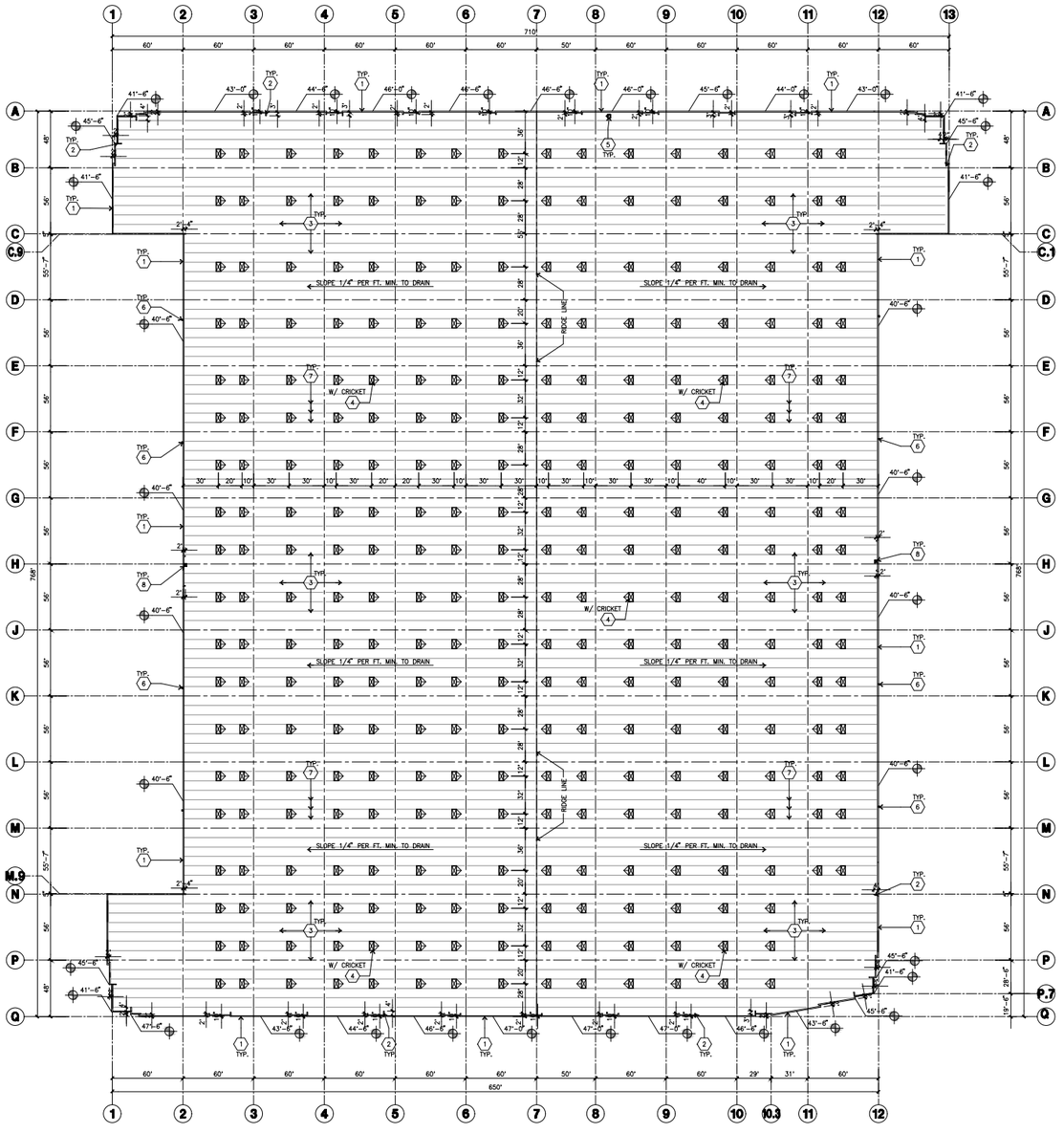
SKYLIGHT CALCULATION

PROJECT:
CLEAR HEIGHT IN WAREHOUSE AREA = 36 FT.

GENERAL:

TOTAL SKYLIGHT REQUIRED = 2.0 % 9,411 S.F. (295 EA.)
TOTAL SKYLIGHT PROVIDED = 298 EA.

BUILDING AREA = 470,526 SF



OVERALL ROOF PLAN A
scale: 1" = 40'-0"

SCALE: 1" = 40'-0"
0 40' 80' 120'
TRUE NORTH

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Developer
LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:
OAKS BUSINESS PARK
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STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: OVERALL ROOF PLAN

Project Number: 19177
Drawn by: TSP
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Revision:

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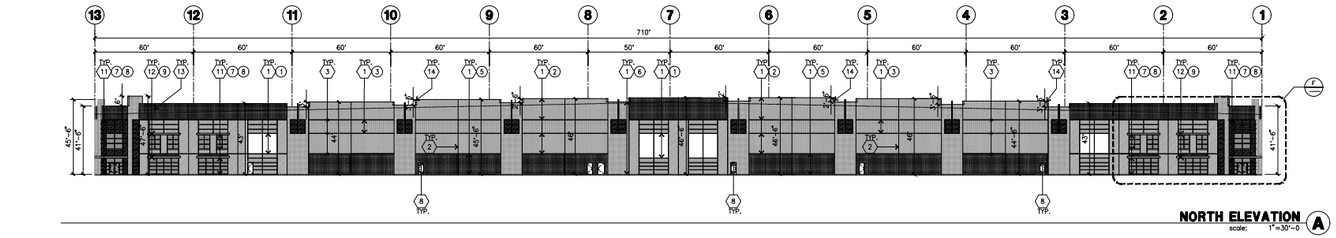
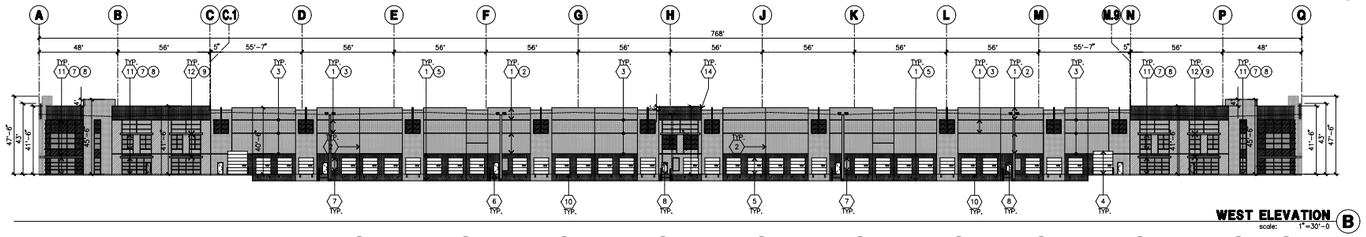
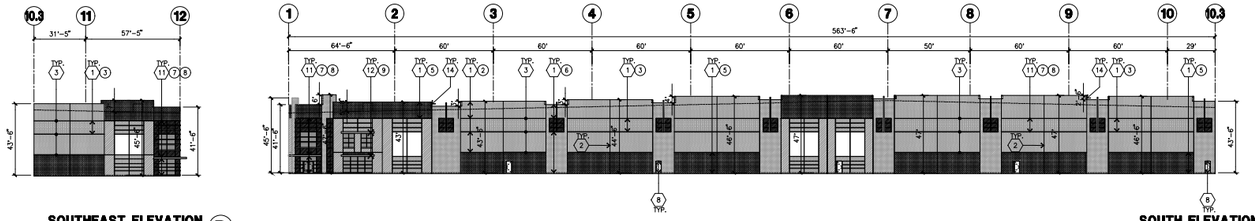


NORTH ELEVATION A
scale: 1"=30'-0

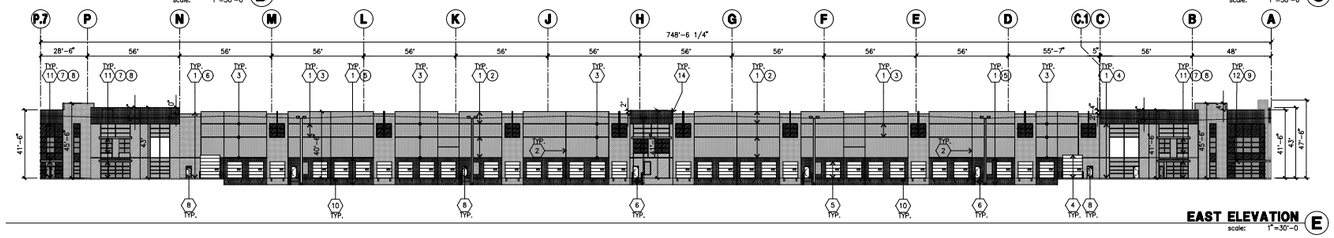


WEST ELEVATION B
scale: 1"=30'-0

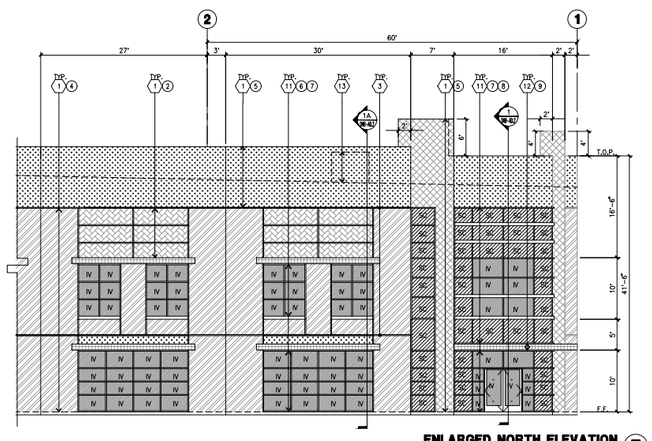


SOUTHEAST ELEVATION D
scale: 1"=30'-0

SOUTH ELEVATION C
scale: 1"=30'-0



EAST ELEVATION E
scale: 1"=30'-0



ENLARGED NORTH ELEVATION F
scale: 1/8" = 1'-0"

KEYNOTES - ELEVATIONS

1. CONCRETE TILT-UP PANEL(PAINTED). FINISH GRADE VARIES. SEE 'C' DRAWINGS. WATERPROOF ALL WALLS WHERE EXTERIOR GRADE IS HIGHER THAN FINISH FLOOR AND EXPOSED TO THE WEATHER. WATERPROOFING TO BE PROTECTED WITH PROTECTION BOARD AND A MIN. OF 6" OF GRAVEL. PROVIDE TRENCH DRAIN AT BOTTOM AND DAYLIGHT TO CURB OR TAKE TO STORM DRAIN.
2. PANEL JOINT.
3. PANEL REVEAL. ALL REVEALS TO HAVE A MAX. OF 3/4" CHAMFER. REVEAL COLOR TO MATCH ADJACENT BUILDING FIELD COLOR. U.N.O.
4. OVERHEAD DOOR @ DRIVE THRU. PROVIDE COMPLETE WEATHER-STRIPPING PROTECTION ALL AROUND.
5. OVERHEAD DOOR @ DOCK HIGH. PROVIDE COMPLETE WEATHER-STRIPPING PROTECTION ALL AROUND.
6. EXTERIOR METAL STEEL STAIR.
7. METAL LOUVER. PAINT TO MATCH BUILDING COLOR.
8. HOLLOW METAL DOORS. PROVIDE COMPLETE WEATHER STRIPING ALL AROUND DOOR. PROVIDE FOR RAIN DIVERTER ABOVE DOOR.
9. EXTERIOR DOWNSPOUT WITH OVERFLOW SCUPPERS.
10. DOCK BUMPER.
11. ALUMINUM STOREFRONT FRAMING WITH TEMPERED GLAZING.
12. METAL CANOPY
13. FUTURE ROOF EQUIPMENT
14. PARAPET RETURN

GENERAL NOTES - ELEVATIONS

1. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED OTHERWISE.
2. ALL PAINT FINISHES ARE TO BE SLAT UNLESS NOTED OTHERWISE.
3. T.O.P. EL.= TOP OF PARAPET ELEVATION.
4. F.F.= FINISH FLOOR ELEVATION.
5. STOREFRONT CONSTRUCTION: GLASS, METAL ATTACHMENTS AND LINTELS SHALL BE DESIGNED TO RESIST – MPH. EXPOSURE "C" WINDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.
6. CONTRACTOR SHALL FULLY PAINT ONE CONCRETE PANEL W/SELECTED COLORS. ARCHITECT AND OWNER SHALL APPROVE PRIOR TO PAINTING REMAINDER OF BUILDING.
7. BACK SIDE OF PARAPETS TO HAVE SMOOTH FINISH AND BE PAINTED WITH ELASTOMERIC PAINT.
8. FOR SPANDREL GLAZING, ALLOW SPACE BEHIND SPANDREL TO BREATH. PROVIDE 1" DIAMETER HOLES AT CONCRETE WALL.
9. USE ADHESIVE BACK WOOD STRIPS FOR ALL REVEAL FORMS.
10. THE FIRST COAT OF PAINT TO BE ROLLED-ON AND THE SECOND COAT TO BE SPRAYED-ON
11. ALL ROLL-UP DOORS AND SERVICE DOORS TO BE PAINTED TO MATCH BUILDING COLOR
12. WHERE GLAZING CROSSES THE PANEL JOINT AND A SINGLE MULLION SHALL BE PROVIDED, DOUBLE MULLIONS ARE NOT AN ACCEPTABLE ALTERNATE.

ELEVATION COLOR LEGEND/SCHED.

1. CONCRETE TILT-UP PANEL. COLOR : SW 7006 EXTRA WHITE
2. CONCRETE TILT-UP PANEL. COLOR : SW 7058 MAGNETIC GRAY
3. CONCRETE TILT-UP PANEL. COLOR : SW 7067 CITY SCAPE
4. CONCRETE TILT-UP PANEL. COLOR : SW 7067 CITY SCAPE
5. CONCRETE TILT-UP PANEL. COLOR : SW 7067 CITY SCAPE
6. CONCRETE TILT-UP PANEL. COLOR : SW 7067 CITY SCAPE
7. MULLIONS COLOR : CLEAR ANODIZED ALUMINUM
8. GLAZING COLOR : BLUE GLAZING
9. CANOPY MATERIAL : SHERWIN-WILLIAMS SW 7006 EXTRA WHITE
10. DOOR COLORS : MATCH BUILDING COLOR

GLAZING LEGEND

NOTE: ALL EXTERIOR AND INTERIOR GLAZING SHALL BE TEMPERED.

IV INSULATED VISION GLASS

SPANDREL GLASS WITH CONCRETE BEHIND

SINGLE LITE VISION GLASS

IV : INSULATED VISION GLASS
1/4" VISTACOOL PACIFICA + 1/4" SOLARBAN 60 CLEAR
1" INSULATED GLASS UNIT WITH 1/2" AIRSPACE AND 1/4" LITES
U: 0.27 SHGC: 0.21 VLT: 39%
MINIMUM VT TO BE 0.42 PER 2016 CEC TABLE 140.3-B

SC : SPANDREL WITH CONCRETE BEHIND
1/4" VISTACOOL PACIFICA WITH WARM GRAY OPACICOAT PAINTED ON REFLECTIVE. INSTALLED ON CONCRETE.

V : VISION GLASS
1/4" VISTACOOL PACIFICA

MULLIONS : DARK GRAY MULLION.

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: Elevations

Project Number: 19177
Drawn by: TSP
Date: 09/19/2023
Revision:

Sheet:
1-DAB-A3.1

North Elevation

West Elevation

South Elevation

East Elevation

JOB# 19177

HPA architecture

JUNE 13, 2022

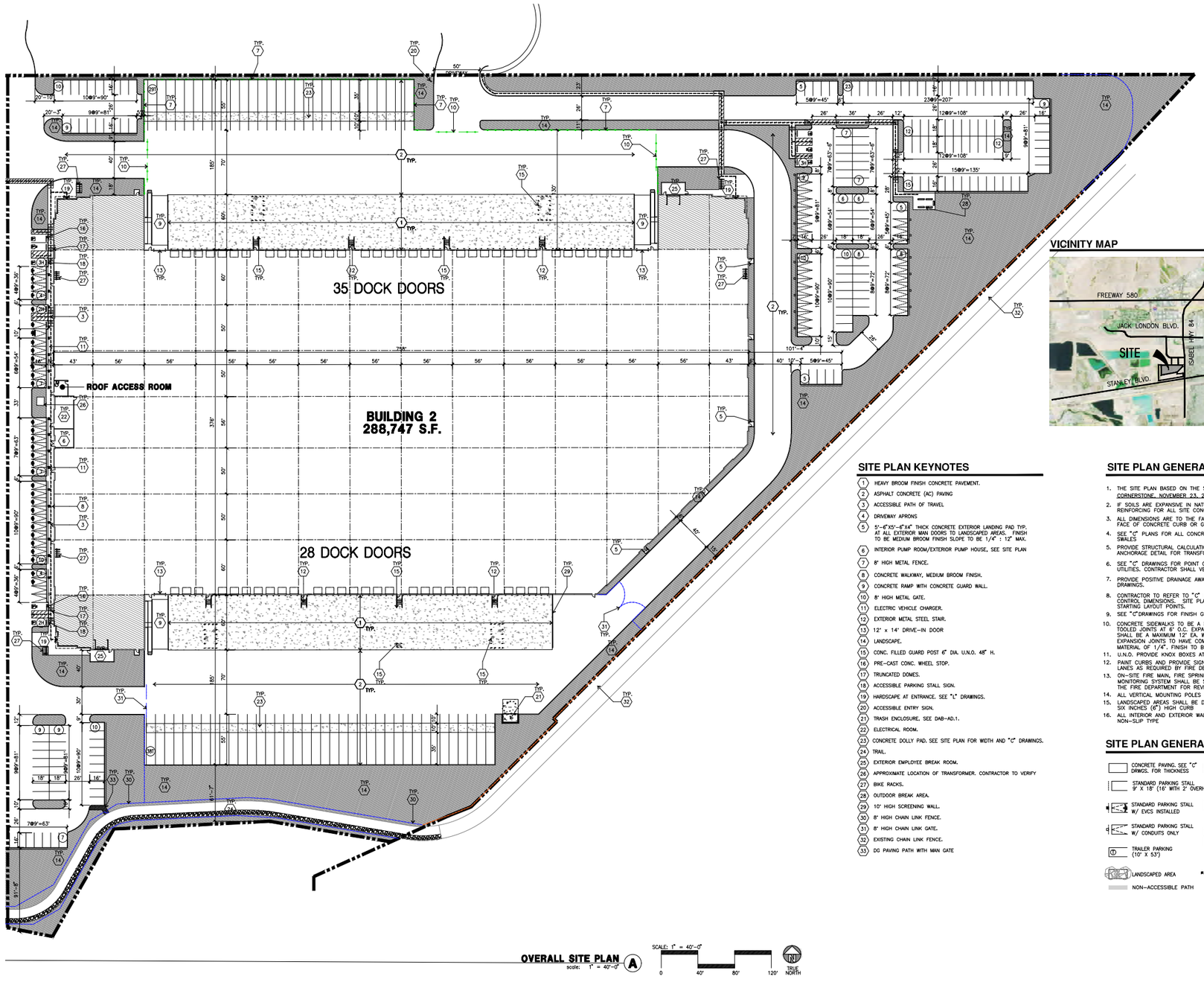
LIVERMORE OAKS BUSINESS PARK - BLDG. 1

LIVERMORE, CA

Conceptual Colored Elevations

OMP

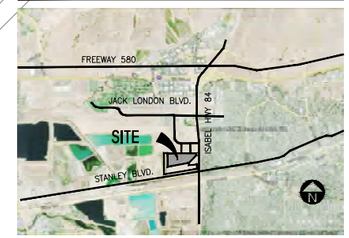
OVERTON MOORE PROPERTIES



OVERALL SITE PLAN (A)
scale: 1" = 40'-0"

SCALE: 1" = 40'-0"
0 40' 80' 120'
TRUE NORTH

VICINITY MAP



SITE PLAN KEYNOTES

1. HEAVY BROOM FINISH CONCRETE PAVEMENT.
2. ASPHALT CONCRETE (AC) PAVING
3. ACCESSIBLE PATH OF TRAVEL
4. DRIVEWAY APRONS
5. 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH SLOPE TO BE 1/4" : 12" MAX.
6. INTERIOR PUMP ROOM/EXTERIOR PUMP HOUSE, SEE SITE PLAN
7. 8' HIGH METAL FENCE.
8. CONCRETE WALKWAY, MEDIUM BROOM FINISH.
9. CONCRETE RAMP WITH CONCRETE GUARD WALL.
10. 8' HIGH METAL GATE.
11. ELECTRIC VEHICLE CHARGER.
12. EXTERIOR METAL STEEL STAIR.
13. 12' x 14' DRIVE-IN DOOR
14. LANDSCAPE.
15. CONC. FILLED GUARD POST 6" DIA U.N.O. 48" H.
16. PRE-CAST CONC. WHEEL STOP.
17. TRUNCATED DOMES.
18. ACCESSIBLE PARKING STALL SIGN.
19. HARDSCAPE AT ENTRANCE. SEE "L" DRAWINGS.
20. ACCESSIBLE ENTRY SIGN.
21. TRASH ENCLOSURE, SEE DAB-AD.1.
22. ELECTRICAL ROOM.
23. CONCRETE DOLLY PAD. SEE SITE PLAN FOR WIDTH AND "C" DRAWINGS.
24. TRAIL.
25. EXTERIOR EMPLOYEE BREAK ROOM.
26. APPROXIMATE LOCATION OF TRANSFORMER. CONTRACTOR TO VERIFY
27. BIKE RACKS.
28. OUTDOOR BREAK AREA.
29. 10' HIGH SCREENING WALL.
30. 8' HIGH CHAIN LINK FENCE.
31. 8' HIGH CHAIN LINK GATE.
32. EXISTING CHAIN LINK FENCE.
33. DG PAVING PATH WITH MAN GATE

SITE PLAN GENERAL NOTES

1. THE SITE PLAN BASED ON THE SOILS REPORT PREPARED BY CORNERSTONE, NOVEMBER 23, 2021, PROJECT NUMBER 681-7-1
2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE.
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES
5. PROVIDE STRUCTURAL CALCULATION AND CONSTRUCTION ANCHORAGE DETAIL FOR TRANSFORMER PRIOR TO INSTALLATION.
6. SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS.
9. SEE "C" DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY W/ 1:20 MAX. SLOPE. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4", FINISH TO BE A MEDIUM BROOM FINISH
11. U.N.O. PROVIDE KNOX BOXES AT ALL OFFICE ENTRANCES.
12. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
13. ON-SITE FIRE MAIN, FIRE SPRINKLER, AND SPRINKLER MONITORING SYSTEM SHALL BE SUBMITTED SEPARATELY TO THE FIRE DEPARTMENT FOR REVIEW AND PERMITTING.
14. ALL VERTICAL MOUNTING POLES OF FENCING SHALL BE CAPPED.
15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB
16. ALL INTERIOR AND EXTERIOR WALK SURFACES TO BE NON-SLIP TYPE

SITE PLAN GENERAL NOTES

- CONCRETE PAVING. SEE "C" DRWGS. FOR THICKNESS
- STANDARD PARKING STALL 9' X 18' (16' WITH 2' OVERHANG)
- STANDARD PARKING STALL W/ EVCS INSTALLED
- STANDARD PARKING STALL W/ CONDUITS ONLY
- TRAILER PARKING (10' X 53')
- LANDSCAPED AREA
- NON-ACCESSIBLE PATH
- COMPACT PARKING STALL 9' X 16' (14' WITH 2' OVERHANG)
- ACCESSIBLE PARKING STALL (9' X 18') ACCESSIBLE AISLE SEE DETAIL 11/AD.1
- ACCESSIBLE PARKING (VAN) STALL (9' X 18') + 8' W/ ACCESSIBLE AISLE
- PATH OF TRAVEL, MINIMUM WIDTH TO BE 4', SLOPE NOT TO EXCEED 5% IN THE DIRECTION OF TRAVEL AND CROSS SLOPE NOT TO EXCEED 2%, SEE CIVIL FOR GRADING PLAN

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•662•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

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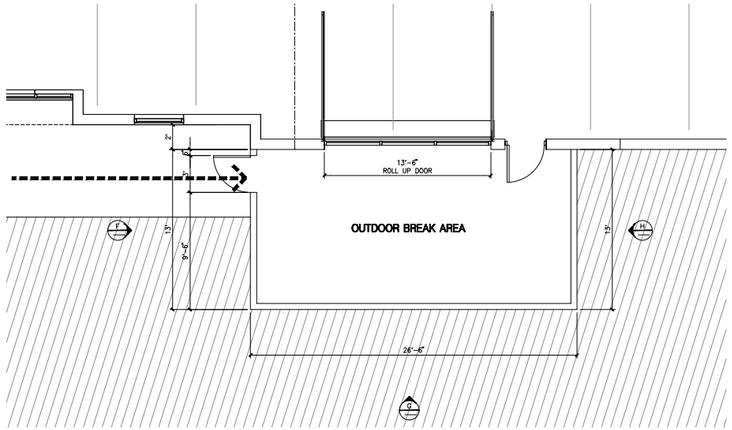
CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: OVERALL SITE PLAN

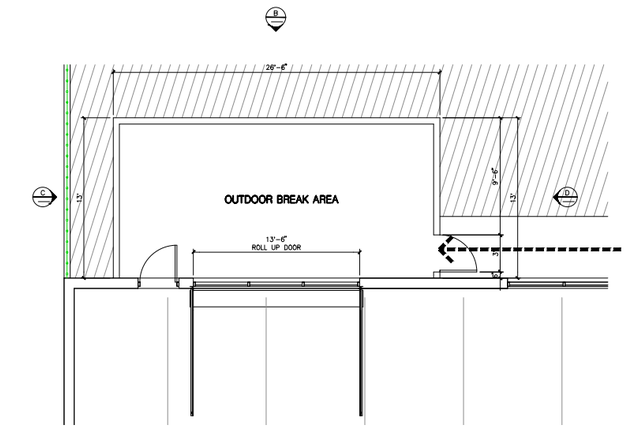
Project Number:	19177
Drawn by:	TSP
Date:	09/19/2023
Revision:	

Sheet: 2-DAB-A1.1



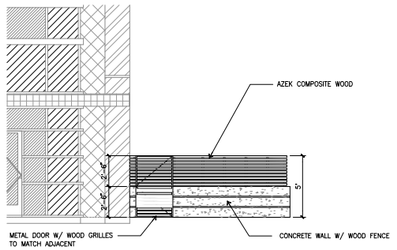
ENALRGED PATIO PLANS (E)
scale: 1/4" = 1'-0"

SCALE: 1/4" = 1'-0"
0 4' 8' 12'
TRUE NORTH

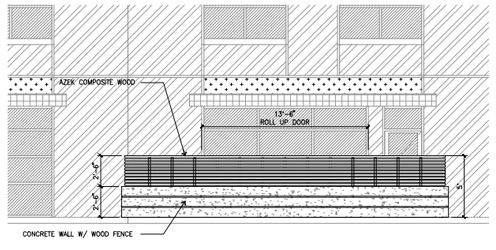


ENALRGED PATIO PLANS (A)
scale: 1/4" = 1'-0"

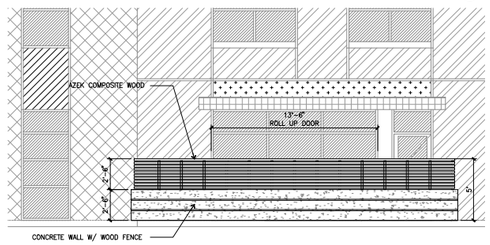
SCALE: 1/4" = 1'-0"
0 4' 8' 12'
TRUE NORTH



PATIO ELEVATION - WEST (F)
scale: 1/4" = 1'-0"



PATIO ELEVATION - NORTH (B)
scale: 1/4" = 1'-0"



PATIO ELEVATION - SOUTH (G)
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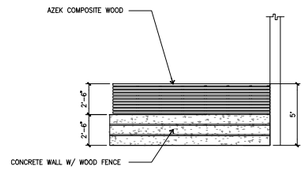
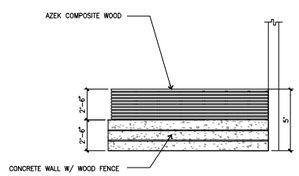
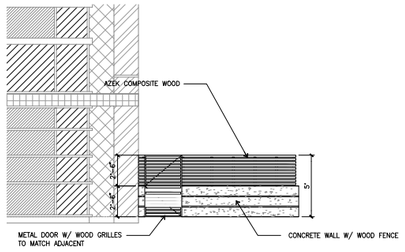


PATIO ELEVATION - WEST (C)
scale: 1/4" = 1'-0"



PATIO ELEVATION - EAST (H)
scale: 1/4" = 1'-0"



PATIO ELEVATION - EAST (D)
scale: 1/4" = 1'-0"

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Developer
LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:
OAKS BUSINESS PARK
LIVERMORE, CA

Consultants:

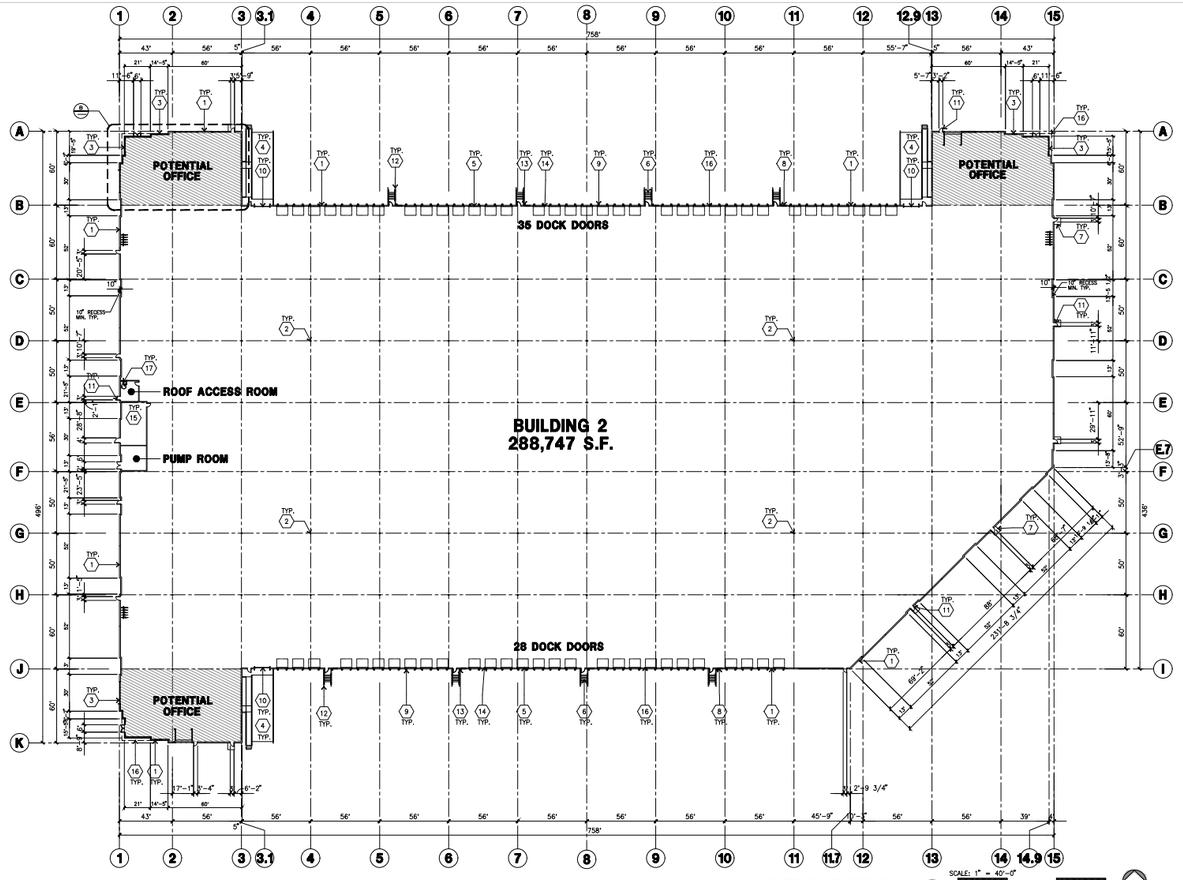
CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: ENLARGED PATIO PLAN & ELEVATION

Project Number:	19177
Drawn by:	TSP
Date:	09/19/2023

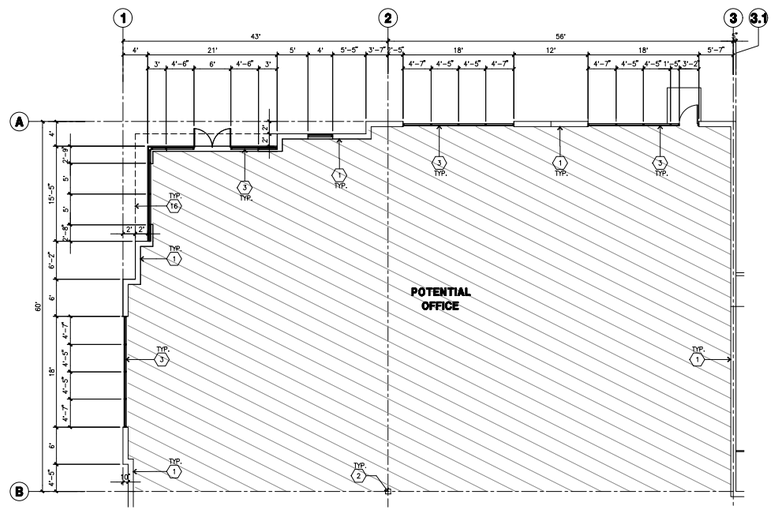
Revision:

Sheet:
2-DAB-A1.2



OVERALL FLOOR PLAN A
scale: 1" = 40'-0"

SCALE: 1" = 40'-0"
0 40' 80' 120'
TRUE NORTH



ENLARGED FLOOR PLAN B
scale: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"
0 8' 16' 24'
TRUE NORTH

KEYNOTES - FLOOR PLAN

1. CONCRETE TILT-UP PANEL.
2. STRUCTURAL STEEL COLUMN.
3. TYPICAL STOREFRONT SYSTEM WITH GLAZING. SEE ENLARGED PLANS AND ELEVATIONS FOR SIZE, COLOR AND LOCATIONS.
4. CONCRETE RAMP W/ 42" HIGH CONC TILT-UP GUARD WALL OR BUILDING WALL ON BOTH SIDES OF RAMP.
5. 9' X 10' DOCK DOOR, SECTIONAL O.H., STANDARD GRADE. DESIGNED TO RESIST CITY REQUIRED WIND SPEED.
6. EXTERIOR METAL STEEL STAIR.
7. 5'-6"x5'-6"x4" THICK CONCRETE EXTERIOR LANDING PAD TYPICAL AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREA. FINISH TO BE MEDIUM BLOOM FINISH. SLOPE TO BE 1/4" : 12" MAX.
8. 4'X8' METAL LOUVER.
9. DOCK DOOR BUMPER.
10. 12' X 14' DRIVE THRU, SECTIONAL O.H., STANDARD GRADE. DESIGNED TO RESIST CITY REQUIRED WIND SPEED.
11. 3' X 7' HOLLOW METAL EXTERIOR MAN DOOR. DESIGNED TO RESIST CITY REQUIRED WIND SPEED.
12. CONC. FILLED GUARD POST. 6" DIA. U.N.O., 48"H.
13. EXTERIOR DOWNSPOUT WITH OVERFLOW SCUPPER.
14. Z GUARD.
15. ELECTRICAL ROOM.
16. METAL CANOPY ABOVE.
17. ROOF ACCESS LADDER.

GENERAL NOTES - FLOOR PLAN

1. THIS BUILDING IS DESIGNED FOR HIGH PILE STORAGE WITH FIRE ACCESS MAN DOORS AT 125' +/-. A SEPARATE PERMIT WILL BE REQUIRED FOR ANY RACKING/CONVEYER SYSTEMS. INSURE HEAT AND SMOKE VENTS AS REQ'D COMPLY WITH TABLE 910.3 CBC
2. FIRE HOSE LOCATIONS SHALL BE APPROVED PER FIRE DEPARTMENT.
3. SEE "C" DRAWINGS FOR FINISH SURFACE ELEVATIONS.
4. WAREHOUSE INTERIOR CONCRETE WALLS ARE PAINTED WHITE. COLUMNS ARE TO RECEIVE PRIMER ONLY. ALL CIP, BD. WALLS IN WAREHOUSE TO RECEIVE 1 COAT OF WHITE TO COVER.
5. THE BUILDING FLOOR SLAB IS FLAT/SLOPED, SEE CIVIL.
6. SLOPE POUR STRIP 1/2" TO EXTERIOR AT ALL MANDOOR EXITS. SEE "S" DRAWINGS FOR POUR STRIP LOCATION.
7. PROVIDE 6" DIA. CONCRETE BOLLARD AT ALL FIRE RISER AND UNPROTECTED INTERIOR ROOF DRAIN.
8. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE PANEL WALL, GRIDLINE, OR FACE OF STUD U.N.O.
9. SEE CIVIL DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR TO VERIFY ACTUAL UTILITY LOCATIONS. PLUMBING/ELECTRICAL COORDINATION.
10. FOR DOOR TYPES AND SIZES, SEE DETAIL SHEET A5.1. NOTE: ALL DOORS PER DOOR SCHEDULE ARE FINISH OPENINGS.
11. CONTRACTOR TO PROTECT AND KEEP THE FLOOR SLAB CLEAN. ALL EQUIPMENT TO BE DIAPERED INCLUDING CARS AND TRUCKS.
12. ALL EXIT MAN DOORS IN WAREHOUSE TO HAVE ILLUMINATED EXIT SIGN HARDWARE.
13. HIGHLY FLAMMABLE AND COMBUSTIBLE MATERIAL SHALL NOT BE USED OR STORED IN THIS BUILDING.
14. PROVIDE FIRE EXTINGUISHERS AT LOCATIONS DETERMINED BY FIRE DEPARTMENT.
15. EACH EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT". THE MOUNTING HEIGHT FOR SUCH SIGNAGE SHALL BE 60" FROM FINISH FLOOR LEVEL TO THE CENTER OF THE SIGN.
16. AFFIX AN INTERNATIONAL ACCESSIBILITY SYMBOL ON ALL ACCESSIBLE ENTRANCES PER CBC 11B-216.6
17. ALL INTERIOR AND EXTERIOR WALKING SURFACES TO BE NON-SLIP TYPE

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

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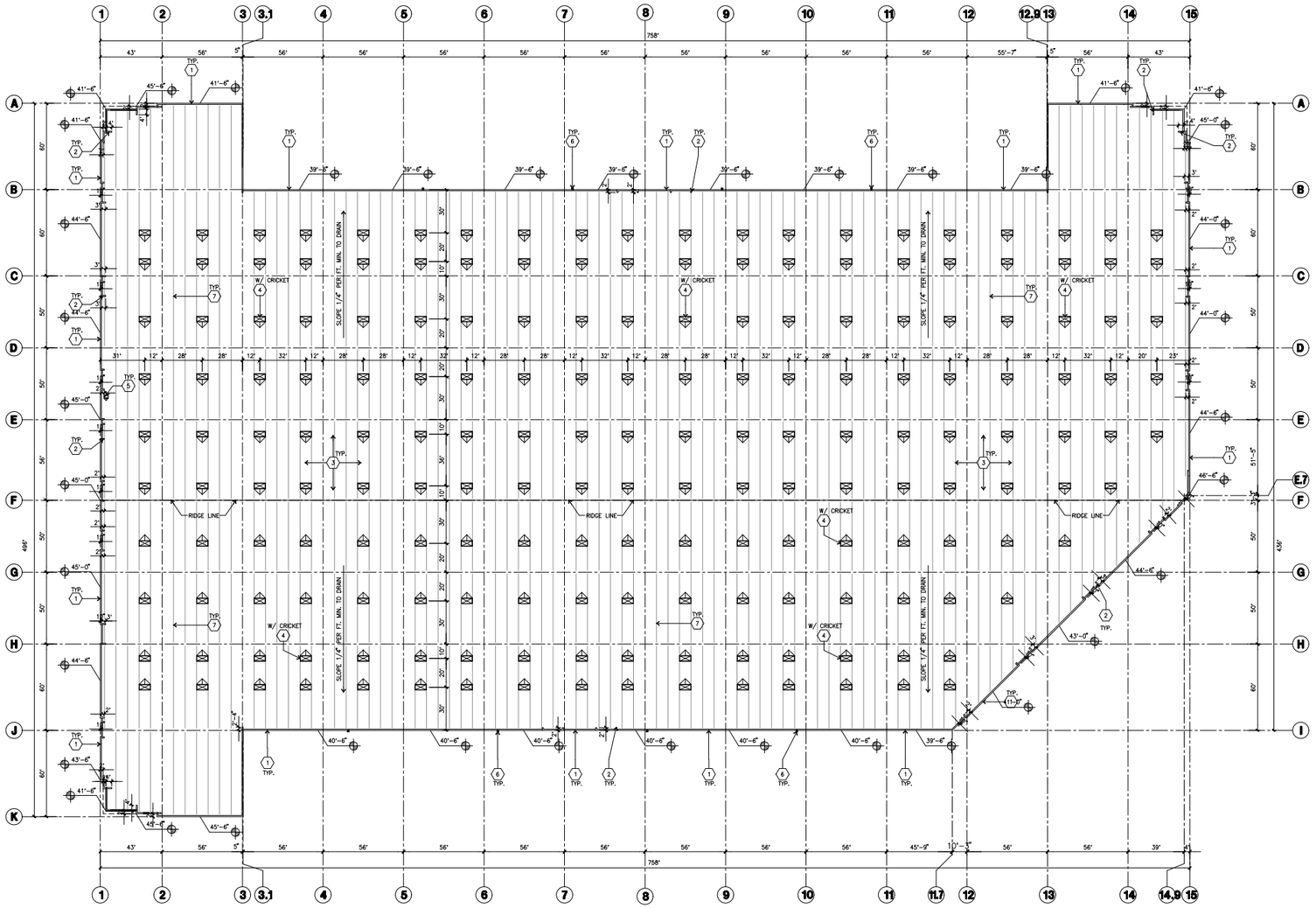
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
GEOTECHNICAL	-
SOILS ENGR	-

Title: OVERALL FLOOR PLAN

Project Number:	19177
Drawn by:	TSP
Date:	09/19/2023
Revision:	

Sheet: 2-DAB-A2.1



OVERALL ROOF PLAN
scale: 1" = 30'-0"

SCALE: 1" = 30'-0"
0 30' 60' 90'
TRUE NORTH

ROOF PLAN KEYNOTES

1. CONCRETE PARAPET.
2. PARAPET RETURN.
3. 60 MIL TPO SINGLE-PLY MEMBRANE ROOFING OVER DENSE DECK OVER ROOF SHEATHING.
4. 4' X 8' CURB MOUNTED SKYLIGHT.
5. ROOF HATCH.
6. EXTERIOR DOWNSPOUT WITH 2 OVERFLOW SCUPPERS.
7. STRUCTURAL JOIST.

ROOF LEGEND

4' X 8' DOUBLE DOME CURB MOUNTED FIXED SKYLIGHTS
SUNOPTICS SIG 4080 WS2.250 LL00.250 DOZ
CC1 LENSCURV 800MD MF FMRTC OR EQUAL
ICC-ESR-2415

BUILDING PARAPET LINE

SKYLIGHT CALCULATION

PROJECT:
CLEAR HEIGHT IN WAREHOUSE AREA = 36 FT.

GENERAL:

TOTAL SKYLIGHT REQUIRED = 2.0 % 5,775 S.F. (181 EA.)
TOTAL SKYLIGHT PROVIDED = 186 EA.

BUILDING AREA = 288,747 SF

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•662•2113
email: hpa@hparchs.com

Developer
LIVERMORE INDUSTRIAL PARTNERS 40 LLC

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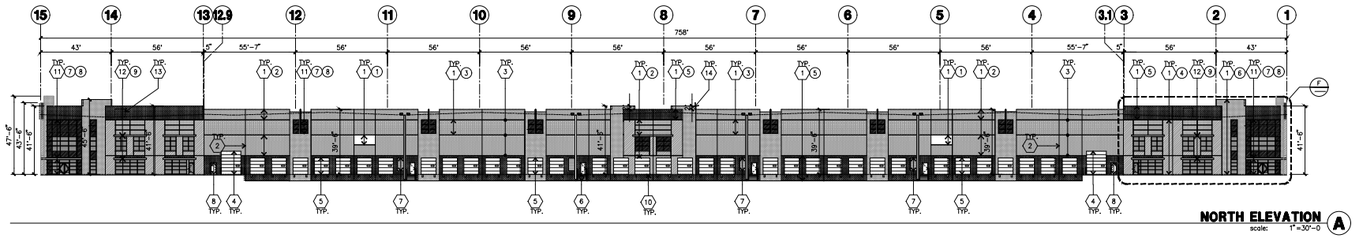
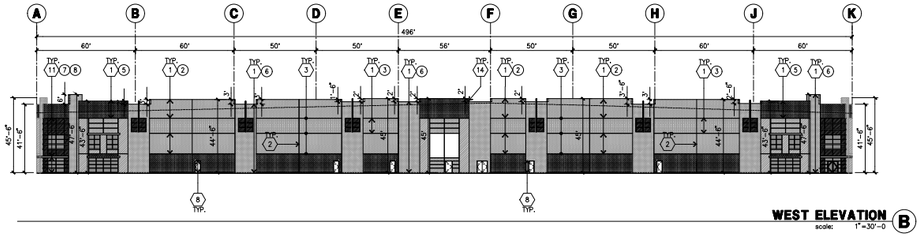
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
FIELD INSPECTION	-

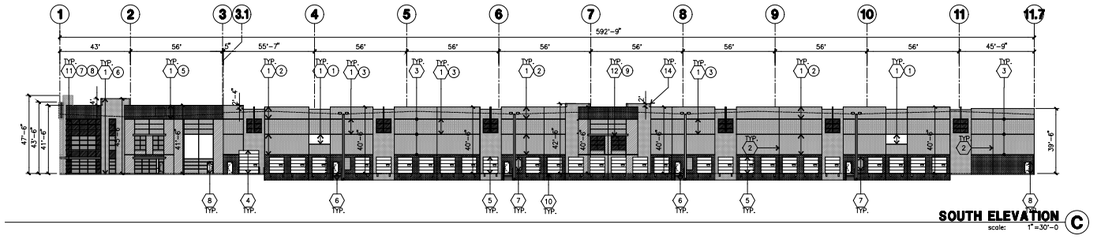
Title: OVERALL ROOF PLAN

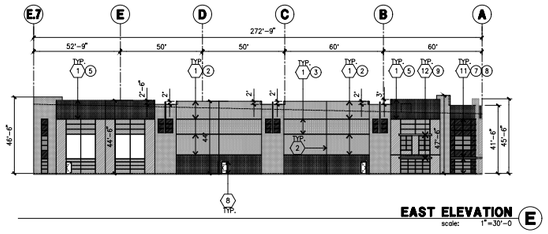
Project Number: 19177
Drawn by: TSP
Date: 09/19/2023
Revision:

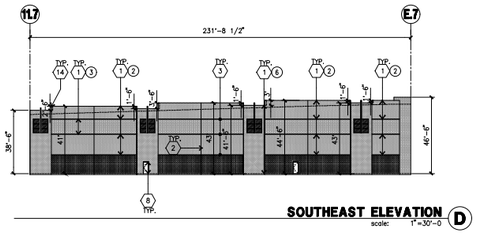
Sheet: 2-DAB-A2.10

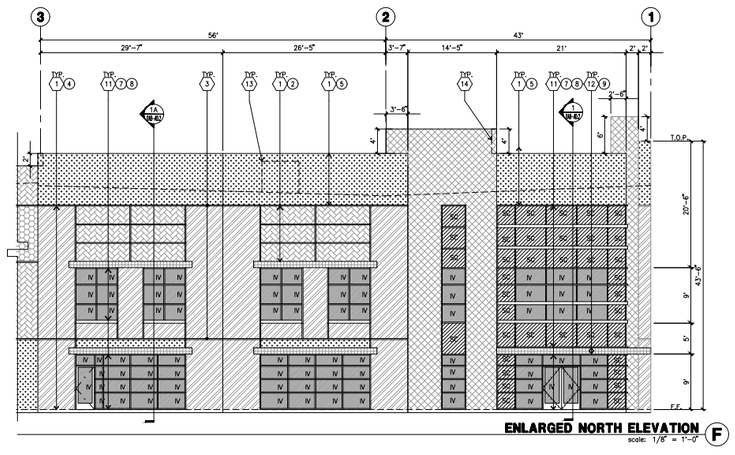












KEYNOTES - ELEVATIONS

1. CONCRETE TILT-UP PANEL(PAINTED). FINISH GRADE VARIES. SEE "C" DRAWINGS. WATERPROOF ALL WALLS WHERE EXTERIOR GRADE IS HIGHER THAN FINISH FLOOR AND EXPOSED TO THE WEATHER. WATERPROOFING TO BE PROTECTED WITH PROTECTION BOARD AND A MIN. OF 6" OF GRAVEL. PROVIDE TRENCH DRAIN AT BOTTOM AND DAYLIGHT TO CURB OR TAKE TO STORM DRAIN.
2. PANEL JOINT.
3. PANEL REVEAL. ALL REVEALS TO HAVE A MAX. OF 3/4" CHAMFER. REVEAL COLOR TO MATCH ADJACENT BUILDING FIELD COLOR. U.N.O.
4. OVERHEAD DOOR @ DRIVE THRU. PROVIDE COMPLETE WEATHER-STRIPPING PROTECTION ALL AROUND.
5. OVERHEAD DOOR @ DOCK HIGH. PROVIDE COMPLETE WEATHER-STRIPPING PROTECTION ALL AROUND.
6. EXTERIOR METAL STEEL STAIR.
7. METAL LOUVER. PAINT TO MATCH BUILDING COLOR.
8. HOLLOW METAL DOORS. PROVIDE COMPLETE WEATHER STRIPING ALL AROUND DOOR. PROVIDE FOR RAIN DIVERTER ABOVE DOOR.
9. EXTERIOR DOWNSPOUT WITH OVERFLOW SCUPPERS.
10. DOCK BUMPER.
11. ALUMINUM STOREFRONT FRAMING WITH TEMPERED GLAZING.
12. METAL CANOPY
13. FUTURE ROOF EQUIPMENT
14. PARAPET RETURN

GENERAL NOTES - ELEVATIONS

1. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED OTHERWISE.
2. ALL PAINT FINISHES ARE TO BE SLAT UNLESS NOTED OTHERWISE.
3. T.O.P. EL.= TOP OF PARAPET ELEVATION.
4. F.F.= FINISH FLOOR ELEVATION.
5. STOREFRONT CONSTRUCTION: GLASS, METAL ATTACHMENTS AND LINTELS SHALL BE DESIGNED TO RESIST -- MPH. EXPOSURE "C" WINDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.
6. CONTRACTOR SHALL FULLY PAINT ONE CONCRETE PANEL W/SELECTED COLORS. ARCHITECT AND OWNER SHALL APPROVE PRIOR TO PAINTING REMAINDER OF BUILDING.
7. BACK SIDE OF PARAPETS TO HAVE SMOOTH FINISH AND BE PAINTED WITH ELASTOMERIC PAINT.
8. FOR SPANDREL GLAZING, ALLOW SPACE BEHIND SPANDREL TO BREATH. PROVIDE 1" DIAMETER HOLES AT CONCRETE WALL.
9. USE ADHESIVE BACK WOOD STRIPS FOR ALL REVEAL FORMS.
10. THE FIRST COAT OF PAINT TO BE ROLLED-ON AND THE SECOND COAT TO BE SPRAYED-ON
11. ALL ROLL-UP DOORS AND SERVICE DOORS TO BE PAINTED TO MATCH BUILDING COLOR
12. WHERE GLAZING CROSSES THE PANEL JOINT AND A SINGLE MULLION SHALL BE PROVIDED, DOUBLE MULLIONS ARE NOT AN ACCEPTABLE ALTERNATE.

ELEVATION COLOR LEGEND/SCHED.

1. CONCRETE TILT-UP PANEL. COLOR : SW 7006 EXTRA WHITE
2. CONCRETE TILT-UP PANEL. COLOR : SW 7058 MAGNETIC GRAY
3. CONCRETE TILT-UP PANEL. COLOR : SW 7067 CITY SCAPE
4. CONCRETE TILT-UP PANEL. COLOR : SW 7067 CITY SCAPE
5. CONCRETE TILT-UP PANEL. COLOR : SW 7067 CITY SCAPE
6. CONCRETE TILT-UP PANEL. COLOR : SW 7067 CITY SCAPE
7. MULLIONS COLOR : CLEAR ANODIZED ALUMINUM
8. GLAZING COLOR : BLUE GLAZING
9. CANOPY MATERIAL : SHERWIN-WILLIAMS SW 7006 EXTRA WHITE
10. DOOR COLORS : MATCH BUILDING COLOR

GLAZING LEGEND

NOTE: ALL EXTERIOR AND INTERIOR GLAZING SHALL BE TEMPERED.

IV INSULATED VISION GLASS

SPANDREL GLASS WITH CONCRETE BEHIND

V SINGLE LITE VISION GLASS

IV : INSULATED VISION GLASS
1/4" VISTACOOL PACIFICA + 1/4" SOLARBAN 60 CLEAR
1" INSULATED GLASS UNIT WITH 1/2" AIRSPACE AND 1/4" LITES
U: 0.27 SHGC: 0.21 VLT: 28%
MINIMUM VT TO BE 0.42 PER 2016 CEC TABLE 140.3-B

SC : SPANDREL WITH CONCRETE BEHIND
1/4" VISTACOOL PACIFICA WITH WARM GRAY OPACICOAT PAINTED ON REFLECTIVE. INSTALLED ON CONCRETE.

V : VISION GLASS
1/4" VISTACOOL PACIFICA

MULLIONS : DARK GRAY MULLION.

HPA architecture

hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: Elevations

Project Number: 19177
Drawn by: TSP
Date: 09/19/2023
Revision:

Sheet:
2-DAB-A3.1

North Elevation

West Elevation

South Elevation

East Elevation

JOB# 19177

HPA architecture

JUNE 13, 2022

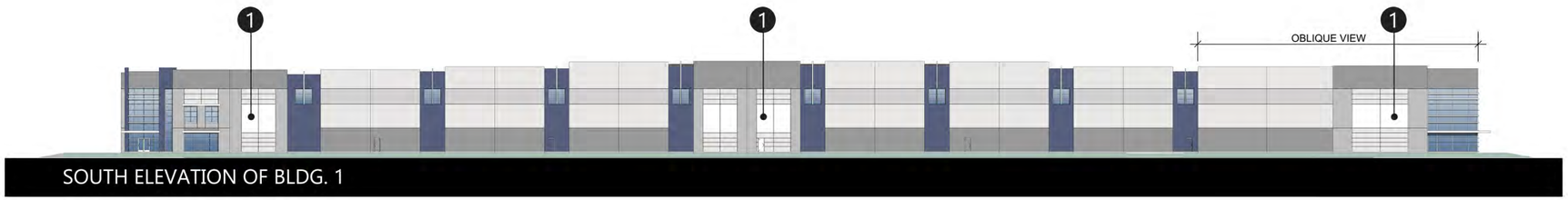
LIVERMORE OAKS BUSINESS PARK - BLDG. 2

LIVERMORE, CA

Conceptual Colored Elevations

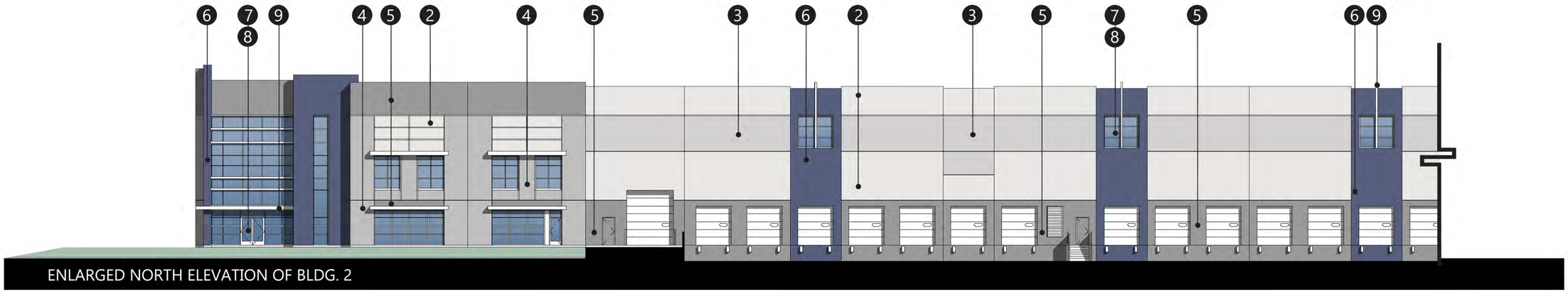
OMP

OVERTON MOORE PROPERTIES



SOUTH ELEVATION OF BLDG. 1

NORTH ELEVATION OF BLDG. 2



ENLARGED NORTH ELEVATION OF BLDG. 2

JOB# 19177

HPA architecture

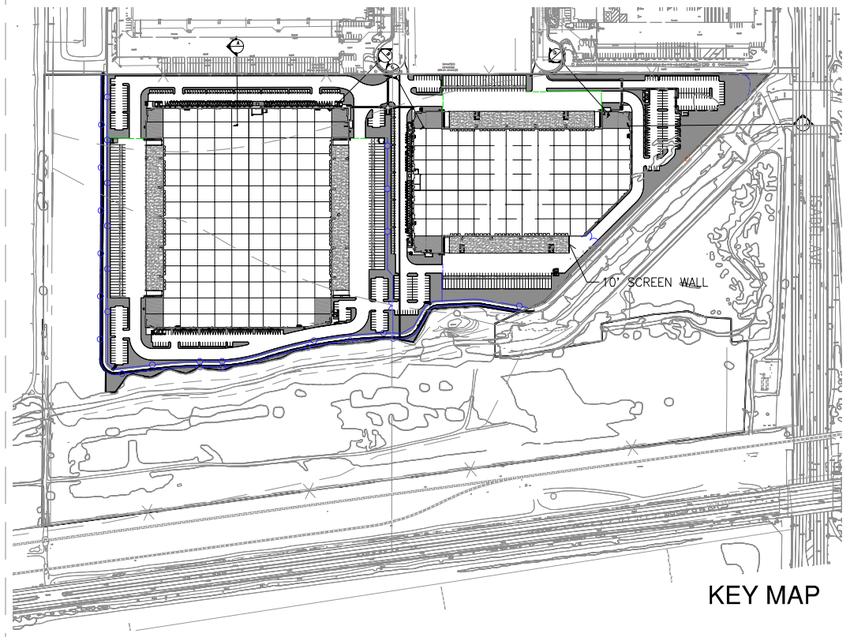
JUNE 13, 2022

LIVERMORE OAKS BUSINESS PARK - BLDG. 1

LIVERMORE, CA

Conceptual Colored Elevations and Material Board

OMP
OVERTON MOORE PROPERTIES



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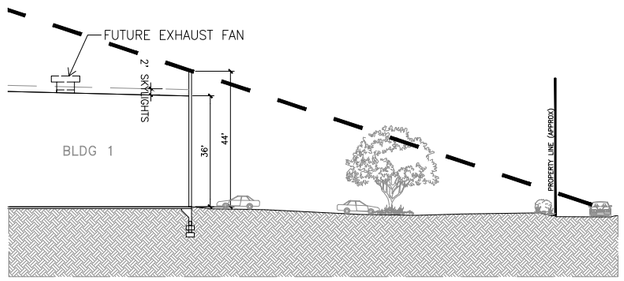

SITE LINE @ SECTION A (A)
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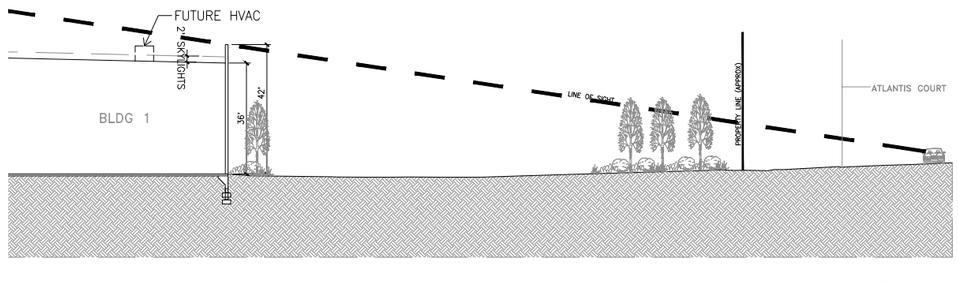

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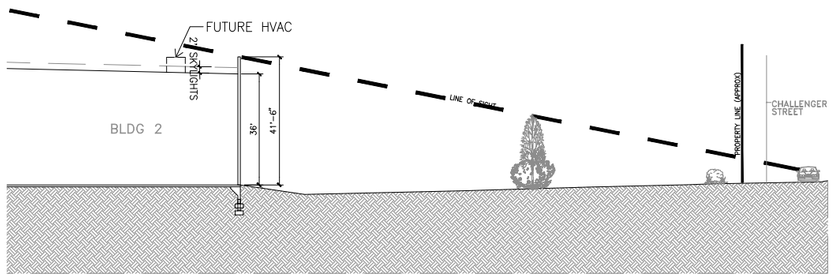

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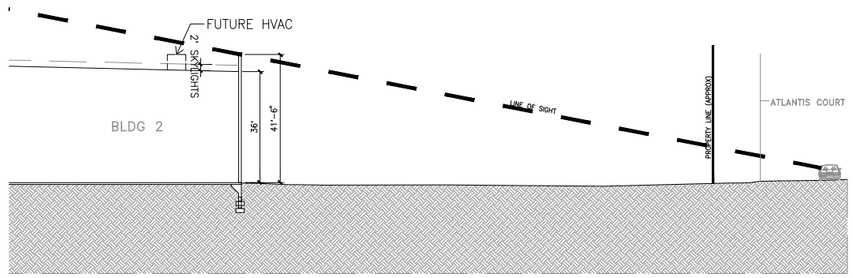

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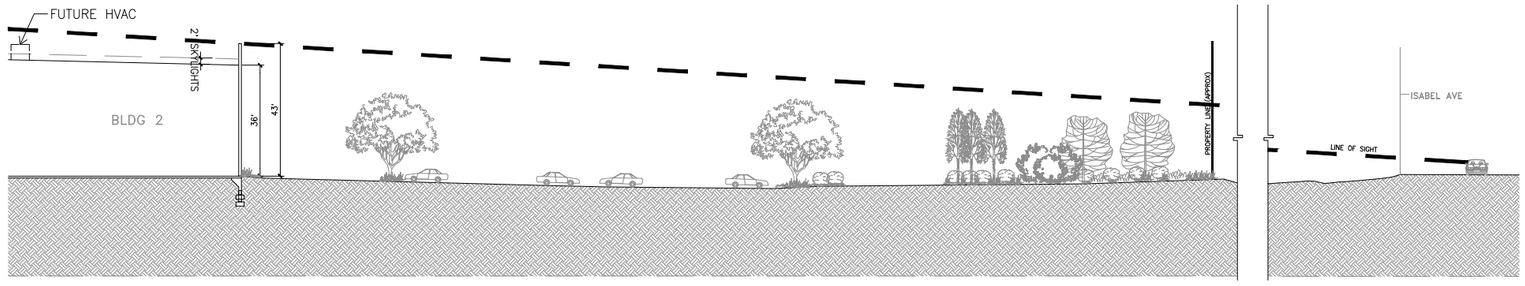


SITE LINE @ SECTION E (E)
scale: 1/16"=1'-0"

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

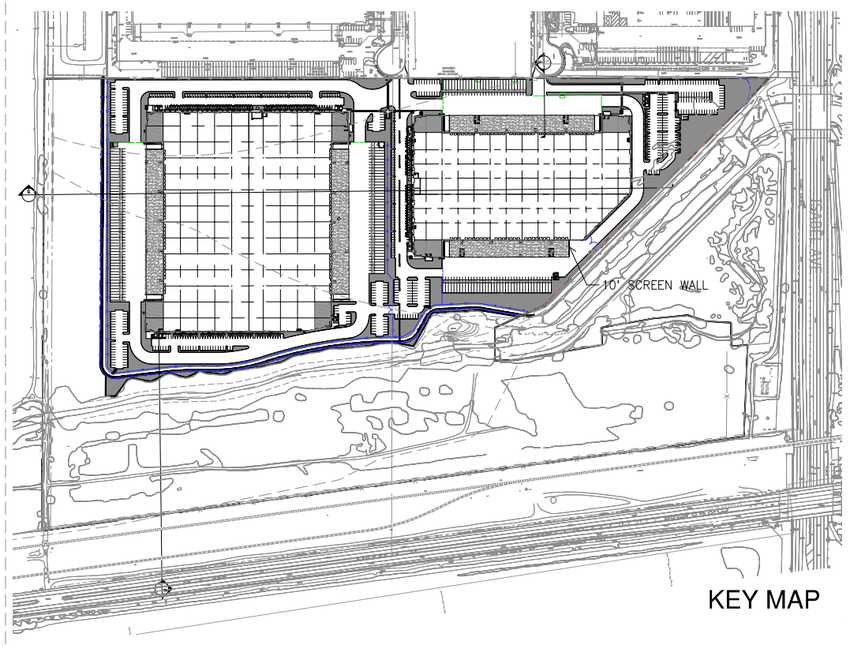
Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: SIGHT LINE

Project Number: 19177
Drawn by: TSP
Date: 09/19/2023
Revision:

Sheet: DAB-A4.1



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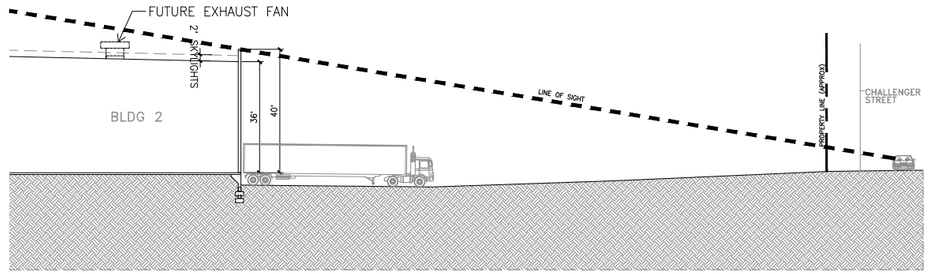

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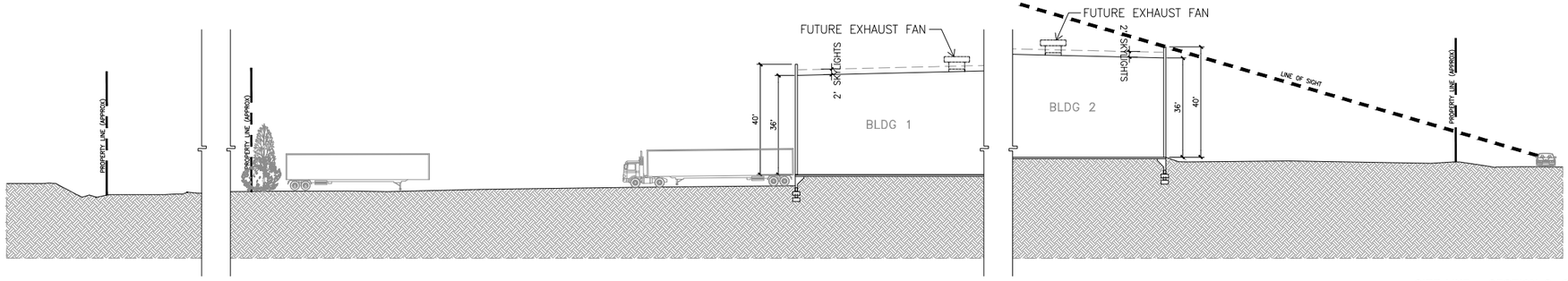

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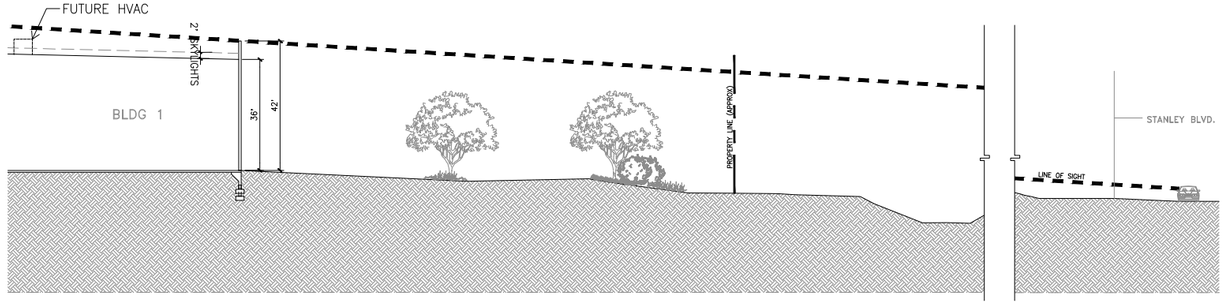

SITE LINE @ SECTION H (H)
scale: 1/16"=1'-0"

HPA architecture

hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•662•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: SIGHT LINE

Project Number: 19177
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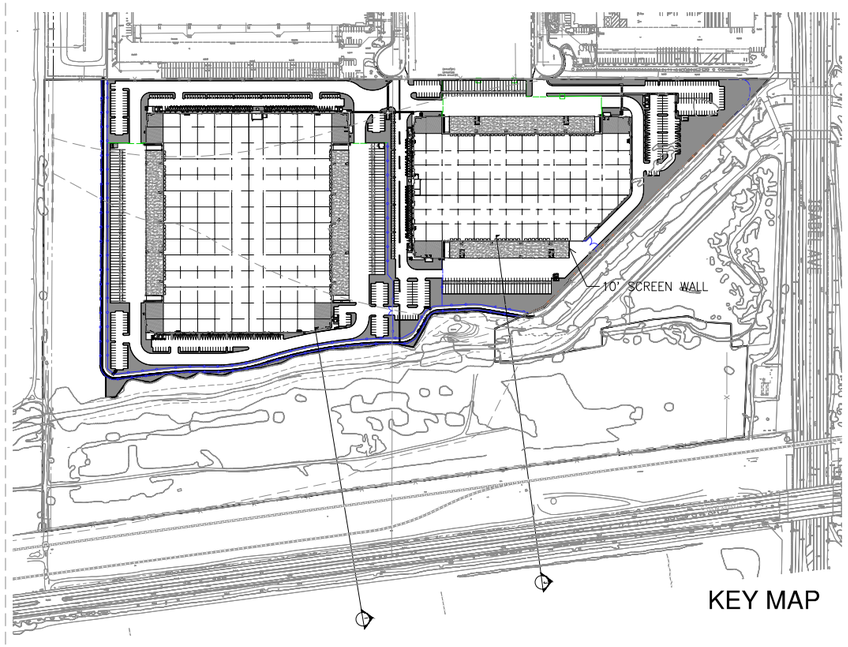
Date: 09/19/2023
Revision:

Sheet:
DAB-A4.2



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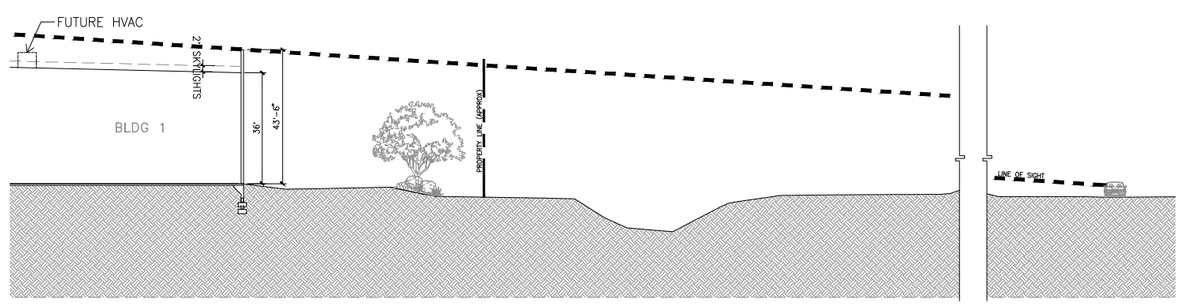

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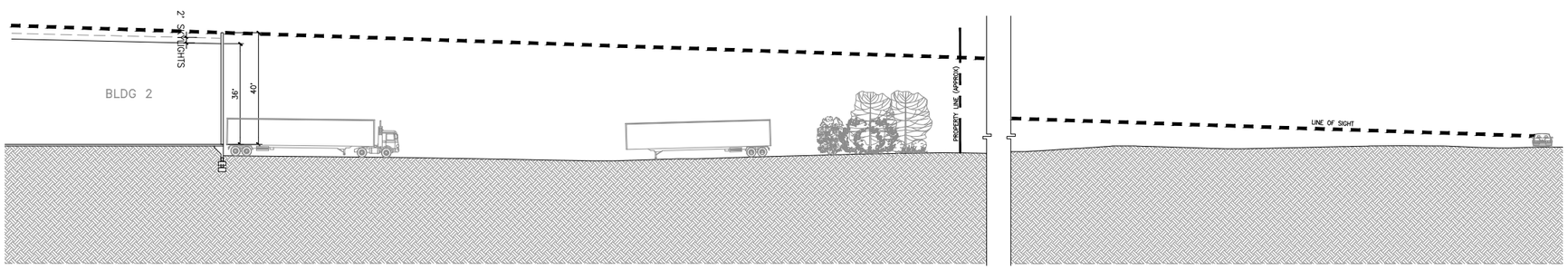


SITE LINE @ SECTION J (J)
scale: 1/16"=1'-0"

HPA architecture

hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

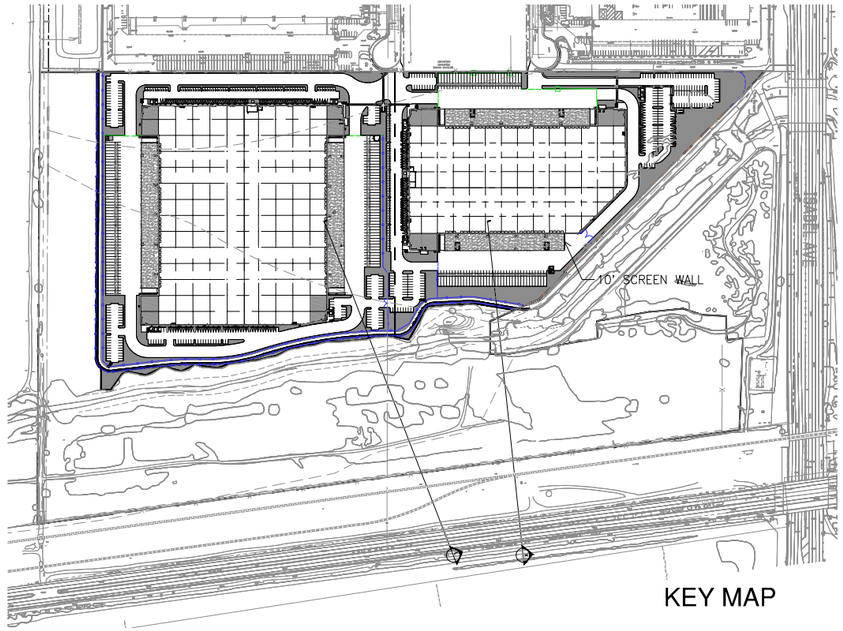
SIGHT LINE

Title:

Project Number:	19177
Drawn by:	TSP
Date:	09/19/2023

Revision:

Sheet:
DAB-A4.3



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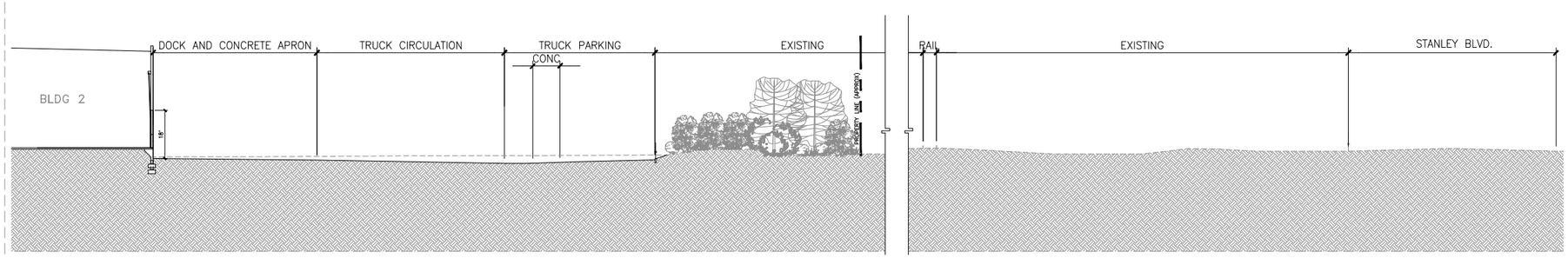

SITE LINE @ SECTION K
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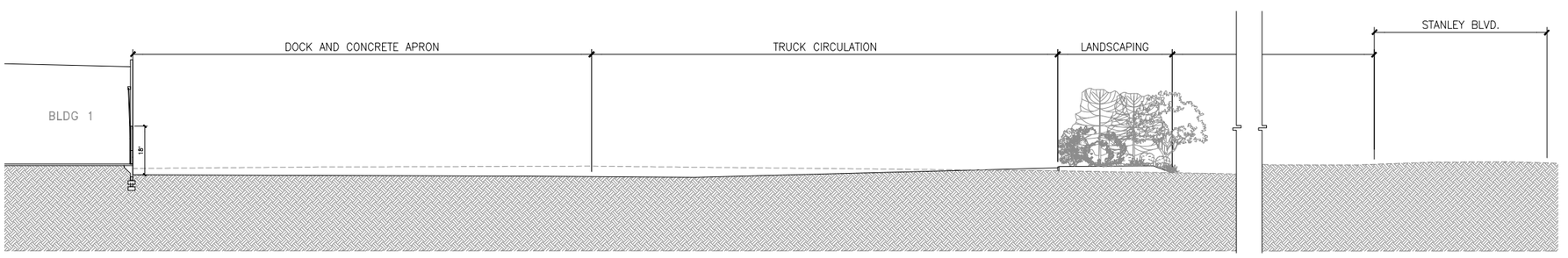


SITE LINE @ SECTION L
scale: 1/16"=1'-0" (L)

HPA architecture

hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

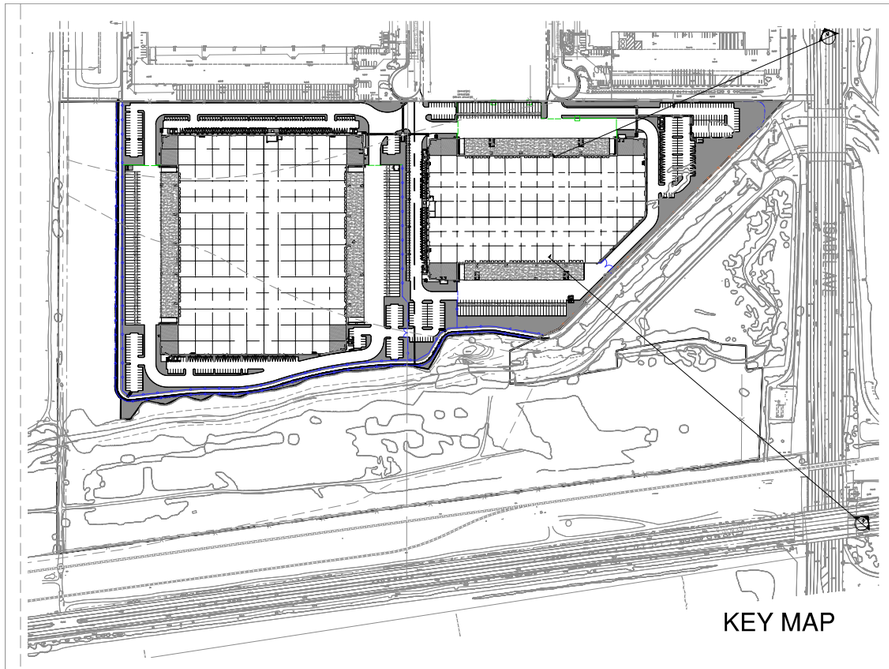
CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: SIGHT LINE

Project Number:	19177
Drawn by:	TSP
Date:	09/19/2023

Revision:

Sheet: DAB-A4.4



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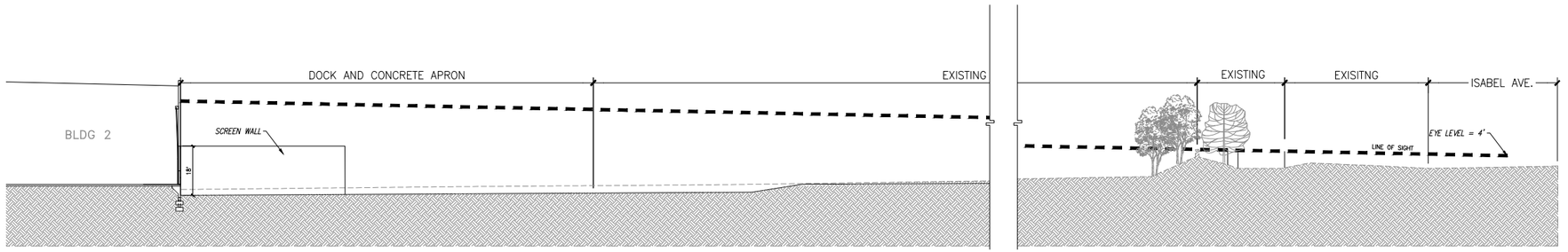

SITE LINE @ SECTION M (M)
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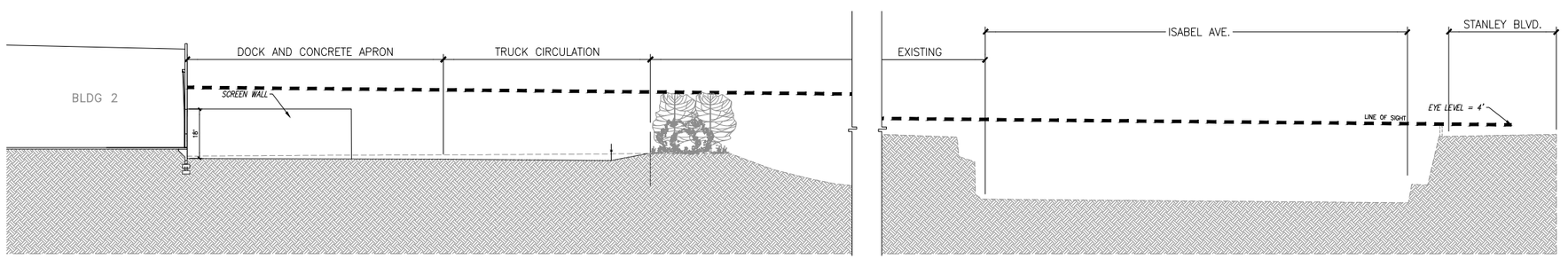


SITE LINE @ SECTION N (N)
scale: 1/16"=1'-0"

HPA architecture

hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

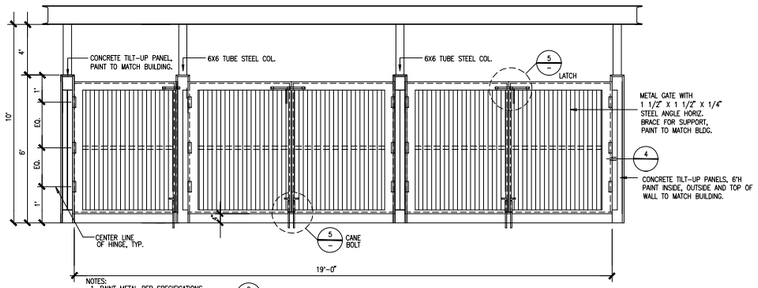
Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

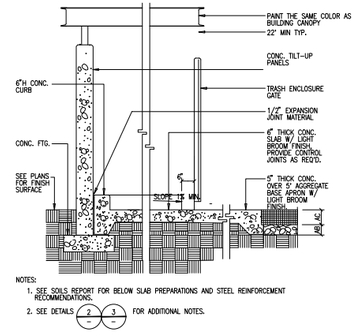
Title: SIGHT LINE

Project Number: 19177
Drawn by: TSP
Date: 09/19/2023
Revision:

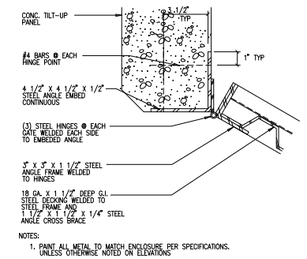
Sheet: DAB-A4.5



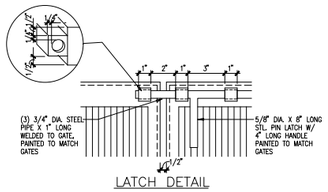
TRASH ENCLOSURE GATE ELEVATION 3
SCALE: 1/2" = 1'-0" A10502B



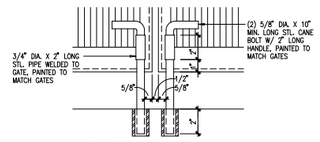
TRASH ENCLOSURE SECTION 1
SCALE: 1/2" = 1'-0" 10502C



TRASH ENCLOSURE GATE & HINGE 4
SCALE: 3"=1'-0" 10506C

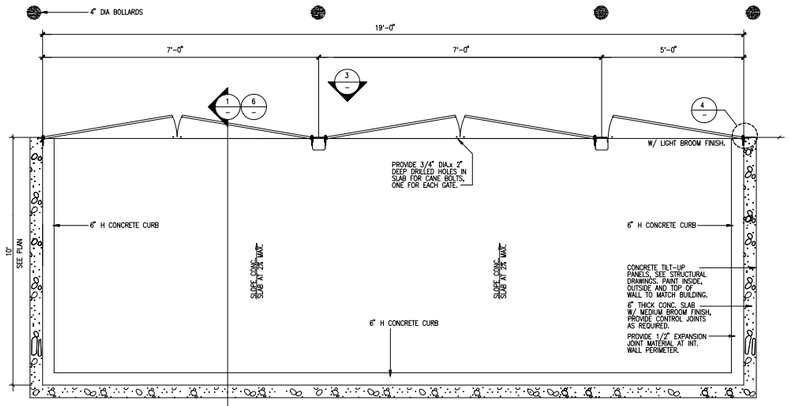


LATCH DETAIL

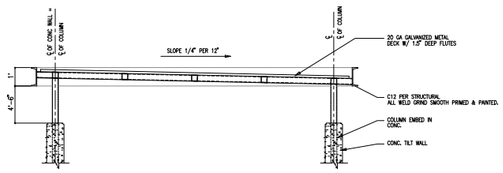


CANE BOLT DETAIL

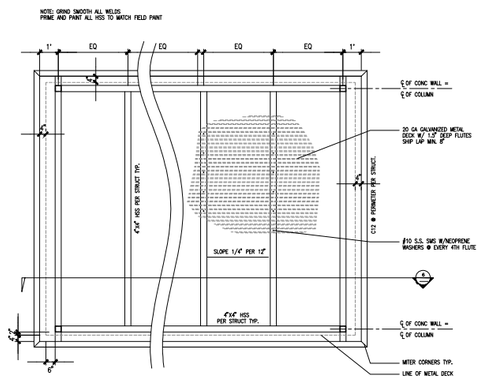
TRASH ENCLOSURE GATE LATCHES 5
SCALE: 3" = 1'-0" DEX-0003



TRASH ENCLOSURE PLAN 2
SCALE: NTS TEMP502A



TRASH ENCLOSURE/OUTDOOR STORAGE CANOPY DETAIL 6
SCALE: 1/2" = 1'-0" DEX-0003



TRASH ENCLOSURE ROOF PLAN 2A
SCALE: 3/8" = 1'-0" TEMP502A

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•682•2113
email:hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

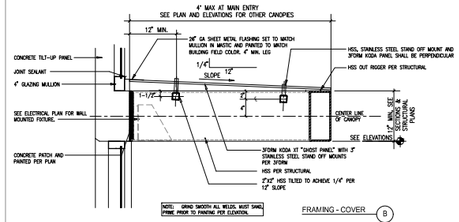
CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

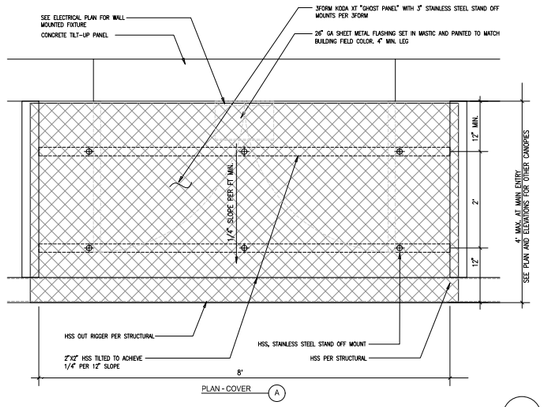
Title: Details

Project Number:	19177
Drawn by:	TSP
Date:	09/19/2023
Revision:	

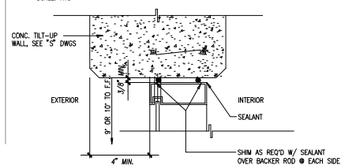
Sheet:

DAB-AD.1

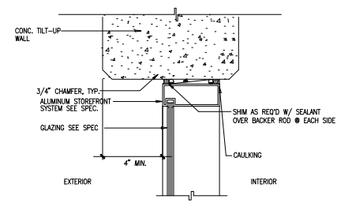




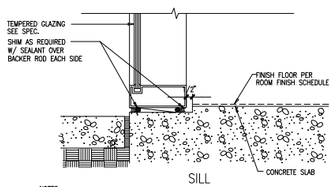
MAIN ENTRY CANOPY COVER DETAIL
SCALE: NTS
2



HEAD/JAMB/SILL @ OPENING



JAMB @ OPENING

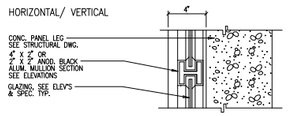


SILL

NOTES:
1. SEE SECTION 2406 OF C.B.C. FOR MINIMUM FRAME LAP OVER GLASS EDGE, MINIMUM GLASS EDGE CLEARANCE, AND REQUIRED GLASS SUPPORTS.
2. SLOPE CONCRETE WALK AT EXTERIOR AWAY FROM BUILDING AT MAX. 2%
3. SILL FURRING DOES NOT OCCUR @ ALL STOREFRONT LOCATIONS - SEE FLOOR PLAN
4. SAFETY GLAZING SHALL BE IDENTIFIED IN ACCORDANCE WITH SECTION 2406.3

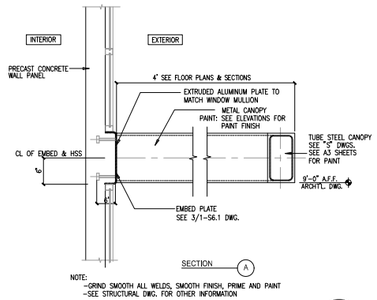
STORE FRONT
SCALE: 3"=1'-0" DFP-036B
5

HORIZONTAL/ VERTICAL



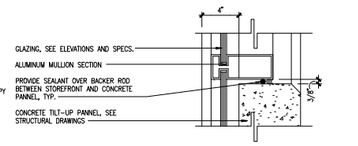
NOTES:
1. SEE SECTION 2406 OF THE C.B.C. FOR MINIMUM FRAME LAP OVER GLASS EDGE, MINIMUM GLASS CLEARANCE AND REQUIRED GLASS SUPPORTS.
2. SEE EXTERIOR ELEVATIONS AND FLOOR PLANS FOR LOCATION
3. PROVIDE VENTILATION HOLE BEHIND SPANDREL GLAZING. SAC AND PATCH AROUND HOLE.

RIBBON WINDOW MULLION
SCALE: 3"=1'-0" 30223
8



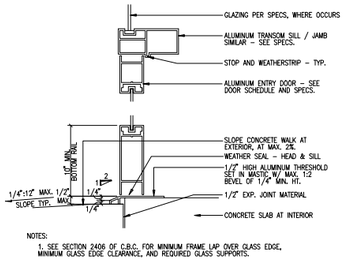
NOTE:
-GRIND SMOOTH ALL WELDS, SMOOTH FINISH, PRIME AND PAINT
-SEE STRUCTURAL DWG. FOR OTHER INFORMATION

CANOPY DETAIL
SCALE: 3"=1'-0" 30224
3



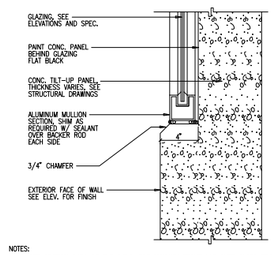
NOTES:
1. SEE SECTION 2406 OF THE C.B.C. FOR MINIMUM FRAME LAP OVER GLASS EDGE, MINIMUM GLASS CLEARANCE AND REQUIRED GLASS SUPPORTS
2. SEE EXTERIOR ELEVATIONS AND FLOOR PLAN FOR LOCATIONS

GLAZING OVER CONCRETE PANEL
SCALE: 3" = 1'-0" 30229
6



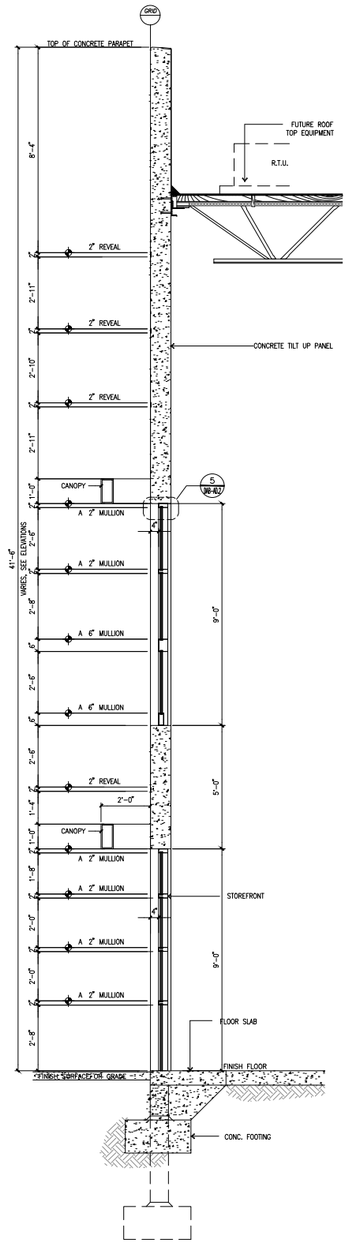
NOTES:
1. SEE SECTION 2406 OF C.B.C. FOR MINIMUM FRAME LAP OVER GLASS EDGE, MINIMUM GLASS EDGE CLEARANCE, AND REQUIRED GLASS SUPPORTS.

ENTRY DOOR SILL/ HEAD / JAMB
SCALE: 3"=1'-0" 30209A
4

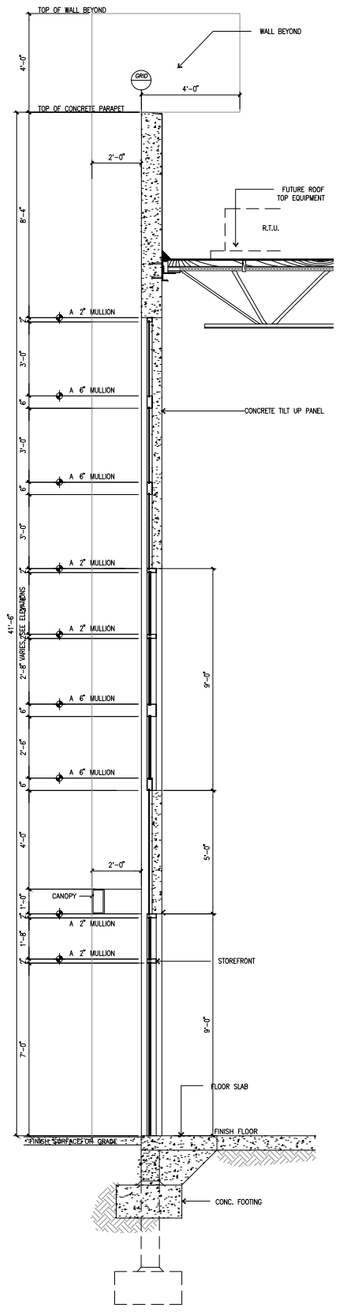


NOTES:
1. SEE SECTION 2406 OF THE C.B.C. FOR MINIMUM FRAME LAP OVER GLASS EDGE, MINIMUM GLASS CLEARANCE AND REQUIRED GLASS SUPPORTS.
2. SEE EXTERIOR ELEVATIONS AND FLOOR PLAN FOR LOCATION.

RIBBON WINDOW SILL, HEAD & JAMB
SCALE: 3"=1'-0" 30224
7



WALL SECTION
scale: 1/2"=1'-0" 1A



WALL SECTION
scale: 1/2"=1'-0" 1

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•682•2113
email: hpa@hparchs.com

Developer
LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:
OAKS BUSINESS PARK
LIVERMORE, CA

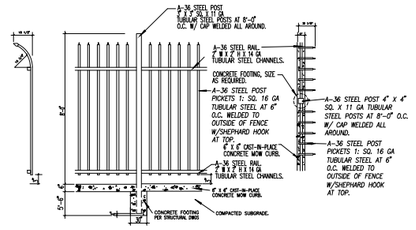
Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: Sections

Project Number: 19177
Drawn by: TSP
Date: 09/19/2023
Revision:

Sheet:
DAB-AD.2



NOTES:
1. ALL TERMINAL POSTS TO BE 3" W X 3" D X 11 GA STEEL TUBES W/ CAP WELDED ALL AROUND.
2. ALL FENCE COMPONENTS TO BE PRIMED AND PAINTED
3. CONCRETE MOW CURB IS REQUIRED WHEN FENCE IS ADJACENT TO TURF AREAS ONLY. ALL OTHER PLANTER AREAS ADJACENT TO FENCE WILL NOT HAVE MOW CURB. SAND AND GRIND ALL WELDS SMOOTH.

PICKET FENCE GATE

METAL FENCE DETAIL 1
SCALE: N.T.S

HPA architecture

hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

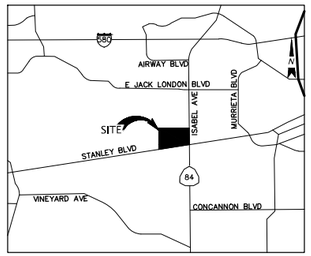
CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: Sections

Project Number: 19177
Drawn by: TSP
Date: 09/19/2023
Revision:

Sheet:
DAB-AD.3

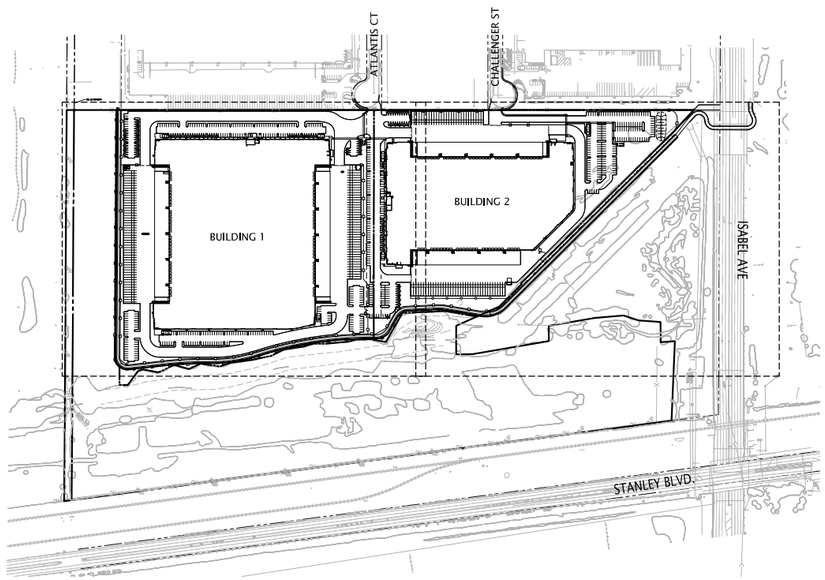
PRELIMINARY SITE IMPROVEMENT PLANS
OF
SMP 40
FOR
LIVERMORE INDUSTRIAL PARTNERS 40 LLC
LIVERMORE, CALIFORNIA



VICINITY MAP
NOT TO SCALE

SHEET INDEX

SHEET	DESCRIPTION
C1.0	COVER
C1.1	TYPICAL SECTIONS
C2.0	TOPOGRAPHIC SURVEY
C2.1	TOPOGRAPHIC SURVEY
C3.0	PRELIMINARY GRADING AND DRAINAGE PLAN
C3.1	PRELIMINARY GRADING AND DRAINAGE PLAN
C3.2	ISABEL AV - HWY 84 TRAIL CROSSINGS - OPTION 01
C3.3	ISABEL AV - HWY 84 TRAIL CROSSINGS - OPTION 02
C4.0	PRELIMINARY UTILITY PLAN
C4.1	PRELIMINARY UTILITY PLAN
C5.0	STORM WATER QUAILITY CONTROL PLAN
C6.0	TRUCK TURNING RADIUS PLAN



SITE MAP
SCALE: 1" = 200'

DEVELOPER

LIVERMORE INDUSTRIAL PARTNERS 40 LLC
ATTN: TIMUR TECIMER
197000 S. VERMONT AVE #101
TORRANCE, CA 90502

CIVIL ENGINEER

KIER & WRIGHT CIVIL ENGINEERS & SURVEYORS, INC.
ATTN: ADAM MAHONEY, P.E.
2850 COLLIER CANYON ROAD
LIVERMORE, CA 94551
925-245-8788

Know what's below. Call before you dig.

NO.	REVISION	BY
△	08.27.2021 - 1ST TENTATIVE MAP/PG SUBMITTAL	SBV
△	01.20.2022 - 2ND TENTATIVE MAP/PG SUBMITTAL	SBV
△	01.20.2023 - 3RD TENTATIVE MAP/PG SUBMITTAL	SBV

REGISTERED PROFESSIONAL ENGINEER
JOHN ADAM MAHONEY
No. 82385
CIVIL
STATE OF CALIFORNIA

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

COVER
OF
SMP 40
FOR
LIVERMORE INDUSTRIAL PARTNERS 40 LLC
LIVERMORE, CALIFORNIA

DATE	SEPTEMBER, 2023
SCALE	AS SHOWN
DESIGNER	CJF/JAM
DRAWN BY	CF
JOB NO.	96562-54
SHEET	C1.0
OF	12 SHEETS

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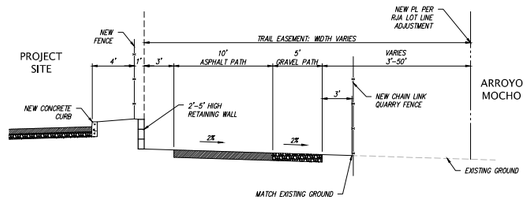
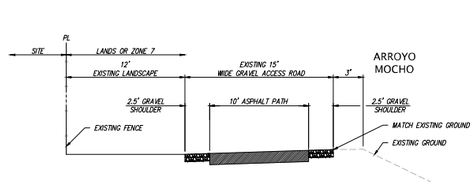
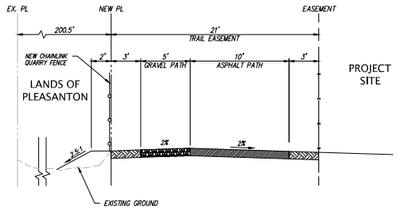


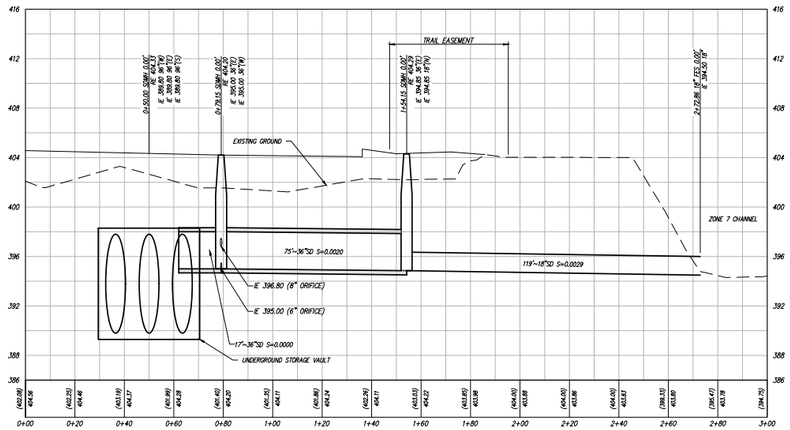
PROPOSED TRAIL SECTION
NOT TO SCALE
A



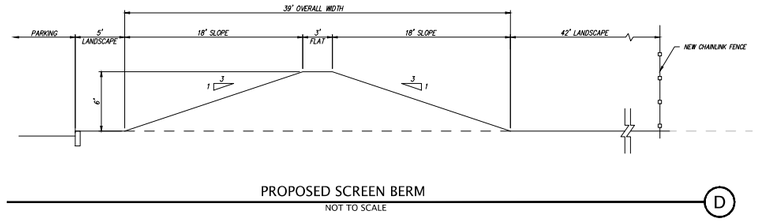
PROPOSED TRAIL SECTION @ ARROYO MOCHO ACCESS ROAD
NOT TO SCALE
B



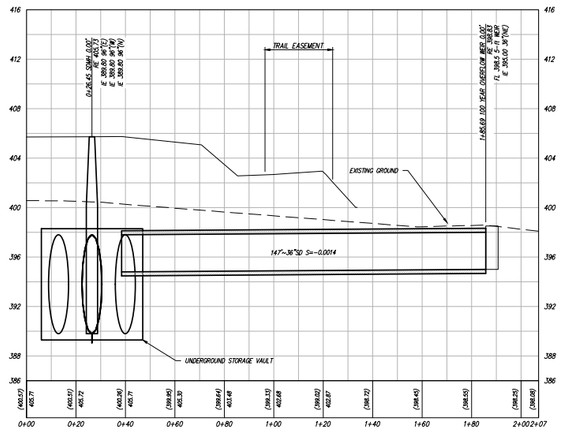
PROPOSED TRAIL SECTION @
NOT TO SCALE
C



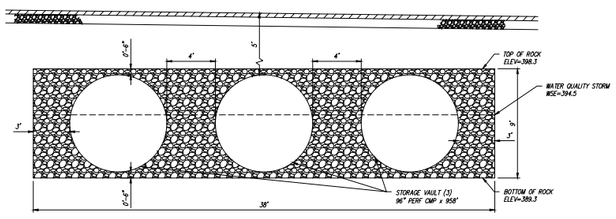
OUTFALL PROFILE 01
SCALE: HZ 1"=20'
VT 1"=4'



PROPOSED SCREEN BERM
NOT TO SCALE
D



OUTFALL PROFILE 02
SCALE: HZ 1"=20'
VT 1"=4'



STORAGE VAULT SECTION A-A
NOT TO SCALE

NO.	DATE	REVISION	BY
1	08.27.2021	1ST TENTATIVE MAP/PD SUBMITTAL	SBW
2	01.26.2022	2ND TENTATIVE MAP/PD SUBMITTAL	SBW
3	01.20.2023	3RD TENTATIVE MAP/PD SUBMITTAL	SBW

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER J. FOSS
No. 82385
CIVIL
STATE OF CALIFORNIA

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

TYPICAL SECTIONS
OF
SMP 40
FOR
LIVERMORE INDUSTRIAL PARTNERS 40 LLC
LIVERMORE, CALIFORNIA

DATE	SEPTEMBER, 2023
SCALE	AS SHOWN
DESIGNER	CJF/JAM
DRAWN BY	CF
JOB NO.	96562-54
SHEET	C1.1
OF	12 SHEETS

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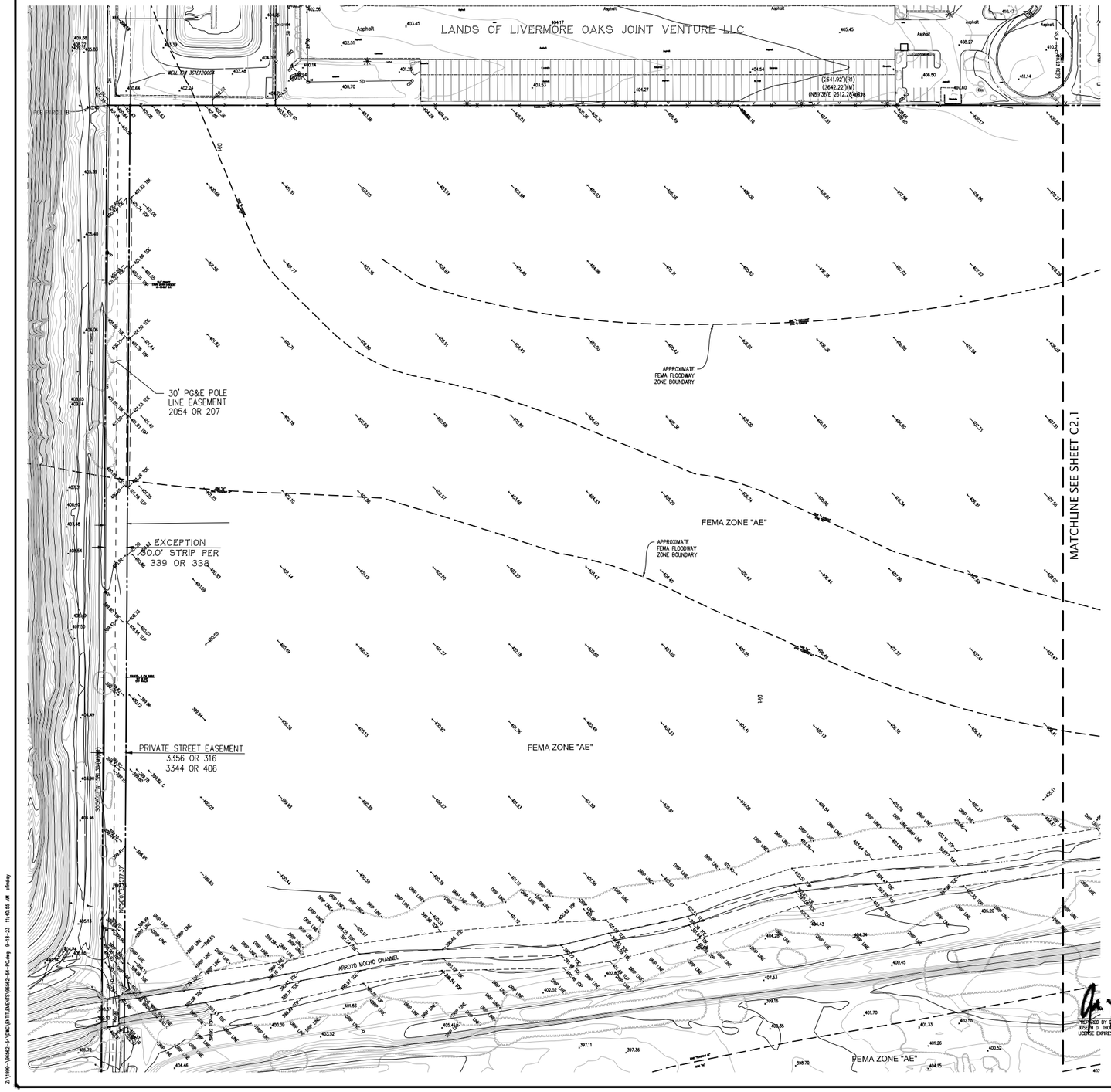
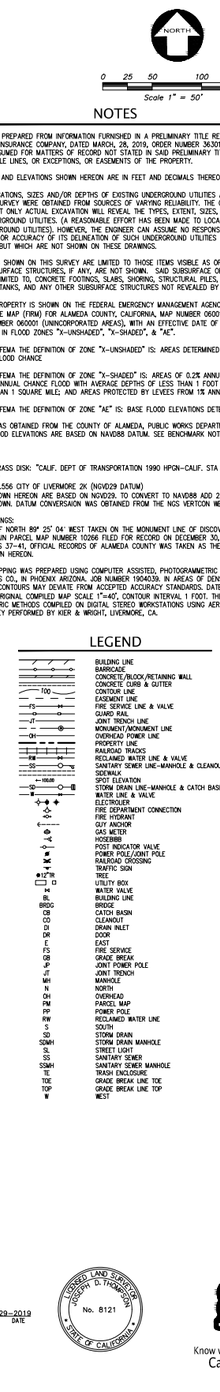




NOTES

1. THIS PLOT WAS PREPARED FROM INFORMATION FURNISHED IN A PRELIMINARY TITLE REPORT, PREPARED BY CHICAGO TITLE INSURANCE COMPANY, DATED MARCH, 28, 2019, ORDER NUMBER 36201446-363-LB-KD. NO LIABILITY IS ASSUMED FOR MATTERS OF RECORD NOT STATED IN SAID PRELIMINARY TITLE REPORT THAT MAY AFFECT THE TITLE LINES, OR EXCEPTIONS, OR EASEMENTS OF THE PROPERTY.

2. ALL DISTANCES AND ELEVATIONS SHOWN HEREON ARE IN FEET AND DECIMALS THEREOF.

3. THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS TOPOGRAPHIC SURVEY WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. (A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES). HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS.

4. PHYSICAL ITEMS SHOWN ON THIS SURVEY ARE LIMITED TO THOSE ITEMS VISIBLE AS OF THE DATE OF THIS SURVEY. SUBSURFACE STRUCTURES, IF ANY, ARE NOT SHOWN. SAID SUBSURFACE OBJECTS MAY INCLUDE, BUT ARE NOT LIMITED TO, CONCRETE FOOTINGS, SLABS, SHORING, STRUCTURAL PILES, UTILITY VAULTS, PIPING, UNDERGROUND TANKS, AND ANY OTHER SUBSURFACE STRUCTURES NOT REVEALED BY A SURFACE INSPECTION.

5. THE SUBJECT PROPERTY IS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR ALAMEDA COUNTY, CALIFORNIA, MAP NUMBER 06001C0341G FOR COMMUNITY NUMBER 060001 (UNINCORPORATED AREAS), WITH AN EFFECTIVE DATE OF AUGUST 3, 2009, AS BEING LOCATED IN FLOOD ZONES "X-UNSHADED", "X-SHADED", & "AE".

   ACCORDING TO FEMA THE DEFINITION OF ZONE "X-UNSHADED" IS: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL FLOOD CHANCE

   ACCORDING TO FEMA THE DEFINITION OF ZONE "X-SHADED" IS: AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

   ACCORDING TO FEMA THE DEFINITION OF ZONE "AE" IS: BASE FLOOD ELEVATIONS DETERMINED

   INFORMATION WAS OBTAINED FROM THE COUNTY OF ALAMEDA, PUBLIC WORKS DEPARTMENT ON MAY 2, 2019. FEMA BASE FLOOD ELEVATIONS ARE BASED ON NAVD88 DATUM. SEE BENCHMARK NOTE FOR DATUM CONVERSIONS.

6. BENCHMARK:
   BM 1971, 3" BRASS DISK: "CALIF. DEPT OF TRANSPORTATION 1990 HPGN-CALIF. STA 04-07" (PID HS5408) [1991.35] -LEV
   ELEVATION: 361.556 CITY OF LIVERMORE 2K (NGVD29 DATUM)
   ELEVATIONS SHOWN HEREON ARE BASED ON NGVD29. TO CONVERT TO NAVD88 ADD 2.638' TO THE ELEVATIONS SHOWN. DATUM CONVERSAION WAS OBTAINED FROM THE NGS VERTCON WEBSITE

7. BASIS OF BEARINGS:
   THE BEARING OF NORTH 89° 25' 04" WEST TAKEN ON THE MONUMENT LINE OF DISCOVERY DRIVE AS SHOWN ON THAT CERTAIN PARCEL MAP NUMBER 10266 FILED FOR RECORD ON DECEMBER 30, 2014, IN BOOK 328 OF MAPS AT PAGES 37-41, OFFICIAL RECORDS OF ALAMEDA COUNTY WAS TAKEN AS THE BASIS FOR ALL BEARINGS SHOWN HEREON.

8. THE AERIAL MAPPING WAS PREPARED USING COMPUTER ASSISTED, PHOTOGRAMMETRIC METHODS BY COOPER AERIAL SURVEYS CO., IN PHOENIX ARIZONA. JOB NUMBER 19040316. IN AREAS OF DENSE VEGETATION, ACCURACY OF CONTOURS MAY DEVIATE FROM ACCEPTED ACCURACY STANDARDS. DATE OF PHOTOGRAPHY 04-03-2019, ORIGINAL COMPILED MAP SCALE 1"=40', CONTOUR INTERVAL 1 FOOT. THE GRID IS BASED ON PHOTOGRAMMETRIC METHODS COMPILED ON DIGITAL STEREO WORKSTATIONS USING AERIAL PHOTOGRAPHY. CONTROL SURVEY PERFORMED BY KIER & WRIGHT, LIVERMORE, CA.

LEGEND

	BUILDING LINE
	BARRICADE
	CONCRETE/BLOCK/RETAINING WALL
	CONCRETE CURB & GUTTER
100	CONTOUR LINE
	EASEMENT LINE
FS	FIRE SERVICE LINE & VALVE
	GUARD RAIL
JT	JOINT TRENCH LINE
	MONUMENT/MONUMENT LINE
OH	OVERHEAD POWER LINE
	PROPERTY LINE
	RAILROAD TRACKS
RW	RECLAIMED WATER LINE & VALVE
SS	SANITARY SEWER LINE-MANHOLE & CLEANOUT
	SIDEWALK
+50.00	SPOT ELEVATION
SD	STORM DRAIN LINE-MANHOLE & CATCH BASIN
W	WATER LINE & VALVE
	ELECTROLIER
	FIRE DEPARTMENT CONNECTION
	FIRE HYDRANT
	GUY ANCHOR
	GAS METER
	HOSEBIBB
	POST INDICATOR VALVE
	POWER POLE/JOINT POLE
	RAILROAD CROSSING
	TRAFFIC SIGN
12"/36"	TREE
	UTILITY BOX
	WATER VALVE
BL	BUILDING LINE
BRDG	BRIDGE
CB	CATCH BASIN
CO	CLEANOUT
DI	DRAIN INLET
DR	DOOR
E	EAST
FS	FIRE SERVICE
GB	GRADE BREAK
JP	JOINT POWER POLE
JT	JOINT TRENCH
MH	MANHOLE
N	NORTH
OH	OVERHEAD
PM	PARCEL MAP
PP	POWER POLE
RW	RECLAIMED WATER LINE
S	SOUTH
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SL	STREET LIGHT
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
TE	TRASH ENCLOSURE
TOE	GRADE BREAK LINE TOE
TOP	GRADE BREAK LINE TOP
W	WEST

PREPARED BY OR UNDER THE SUPERVISION OF JOSEPH D. THOMPSON, L.S. 8121
LICENSE EXPIRES: 12-31-20

5-29-2019
DATE

LICENSED LAND SURVEYOR JOSEPH D. THOMPSON No. 8121 STATE OF CALIFORNIA

811 Know what's below. Call before you dig.

NO.	BY	REVISION

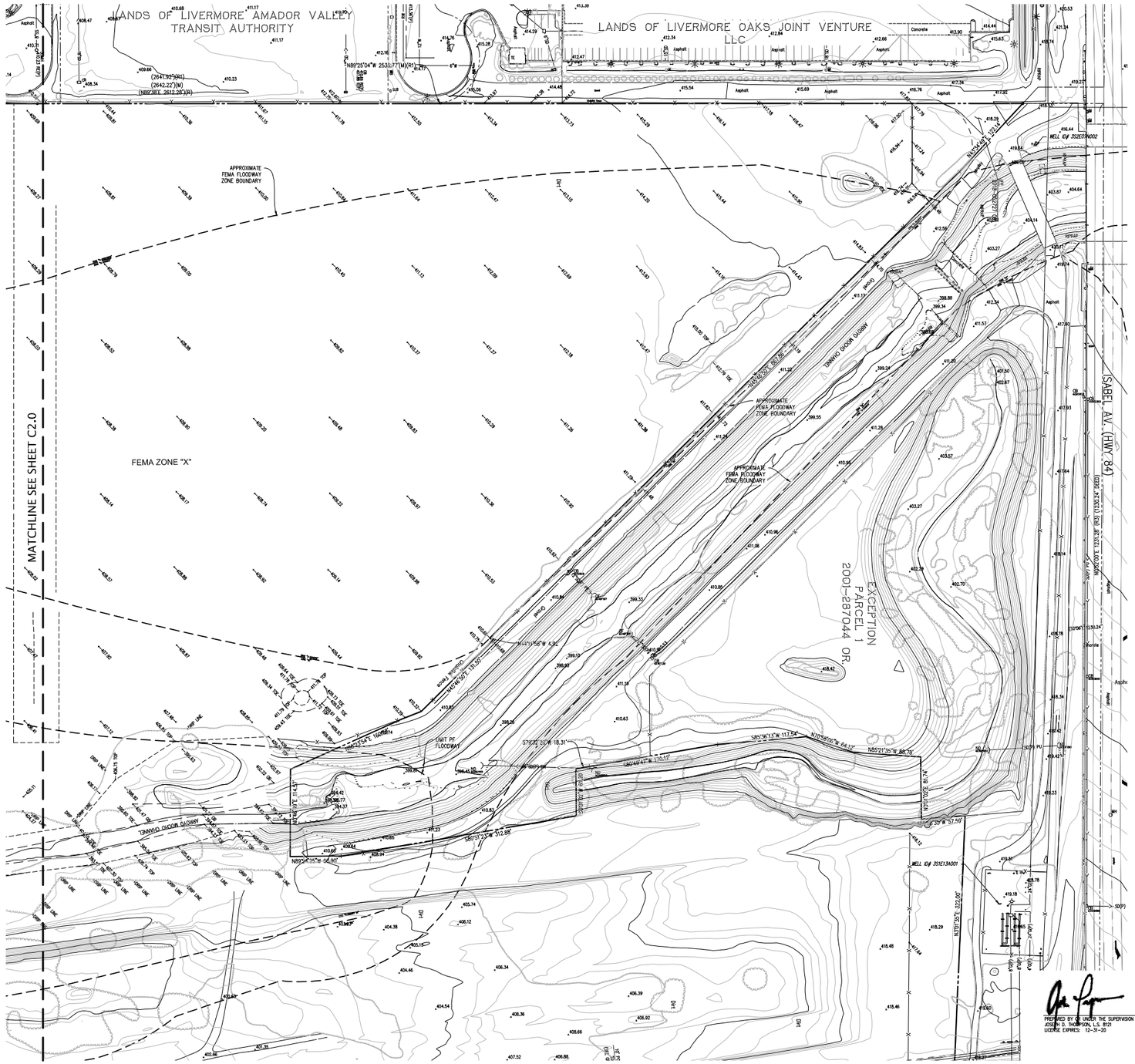
KIER+WRIGHT
2850 Collier Canyon Road
Livermore, California 94551
Phone (925) 245-8788
www.kierwright.com

TOPOGRAPHIC SURVEY
OF
SMP 40
FOR
OVERTON MOORE PROPERTIES

LIVERMORE, CALIFORNIA

DATE	MAY, 2019
SCALE	1" = 50'
SURVEYOR	KJK
DRAWN BY	CSW
JOB NO.	96562-54
SHEET	C2.0
OF	11 SHEETS

Z:\1996-\96562-54\CAD\LDT\TOPO\96562-54-PCE.dwg 5-28-21 11:40:59 AM dlabay



PREPARED BY OR UNDER THE SUPERVISION OF JOSEPH D. THOMPSON, L.S. 8121
LICENSE EXPIRES: 12-31-20

5-29-2019
DATE

LICENSED LAND SURVEYOR
JOSEPH D. THOMPSON
No. 8121
Exp. 12-31-20
STATE OF CALIFORNIA

811
Know what's below.
Call before you dig.

NO.	REVISION	BY
△		
△		
△		
△		
△		

KIER+WRIGHT
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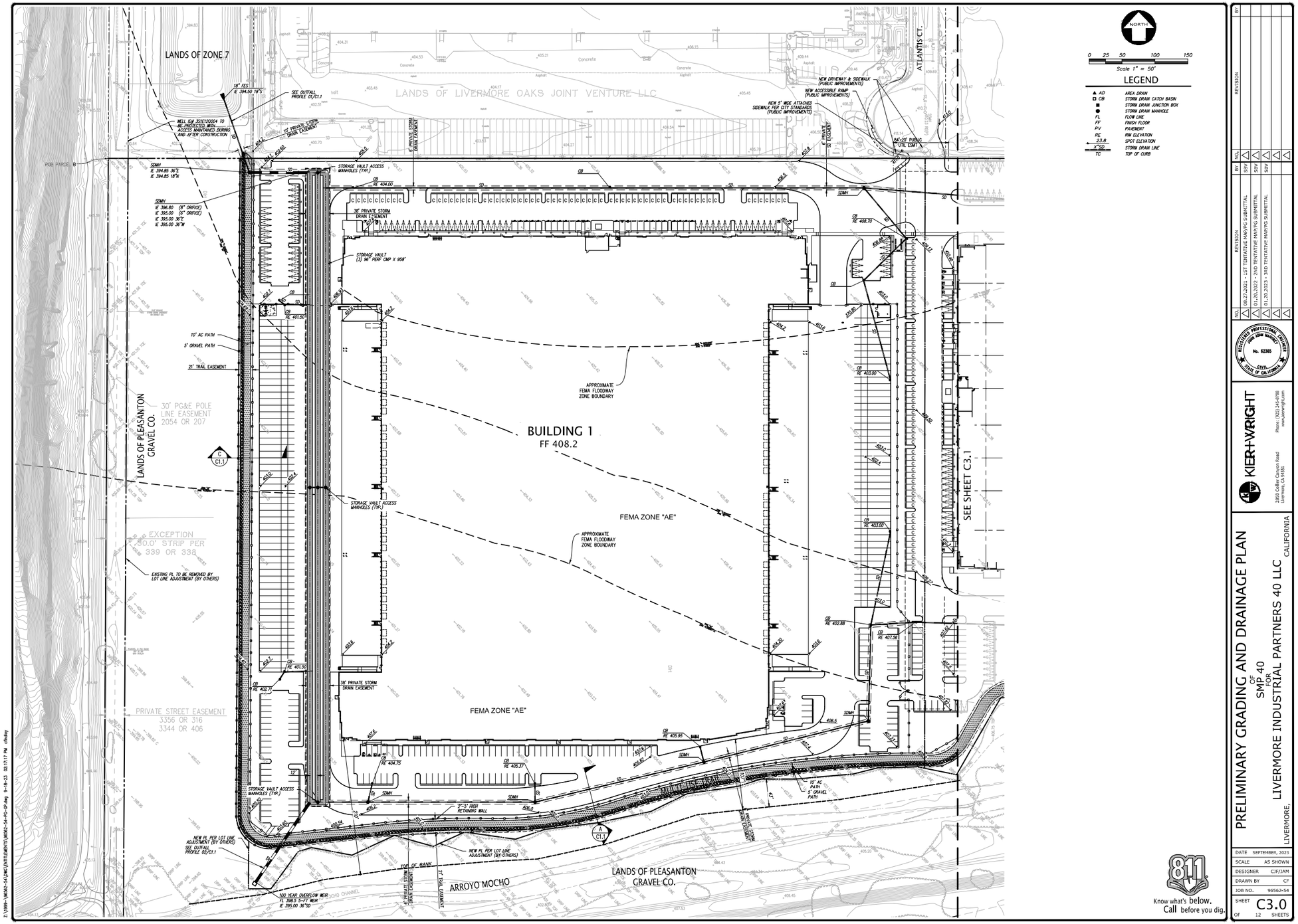
Livermore, California 94551
Phone (925) 245-8788
www.kierwright.com

TOPOGRAPHIC SURVEY
OF
SMP 40
FOR
OVERTON MOORE PROPERTIES

LIVERMORE, CALIFORNIA

DATE	MAY, 2019
SCALE	1" = 50'
SURVEYOR	KJK
DRAWN BY	CSW
JOB NO.	96562-54
SHEET	C2.1
OF	11 SHEETS

Z:\1999-\96562-54\DWG\ENTITLEMENTS\96562-54-PG.dwg 9-18-23 11:41:01 AM cfindley



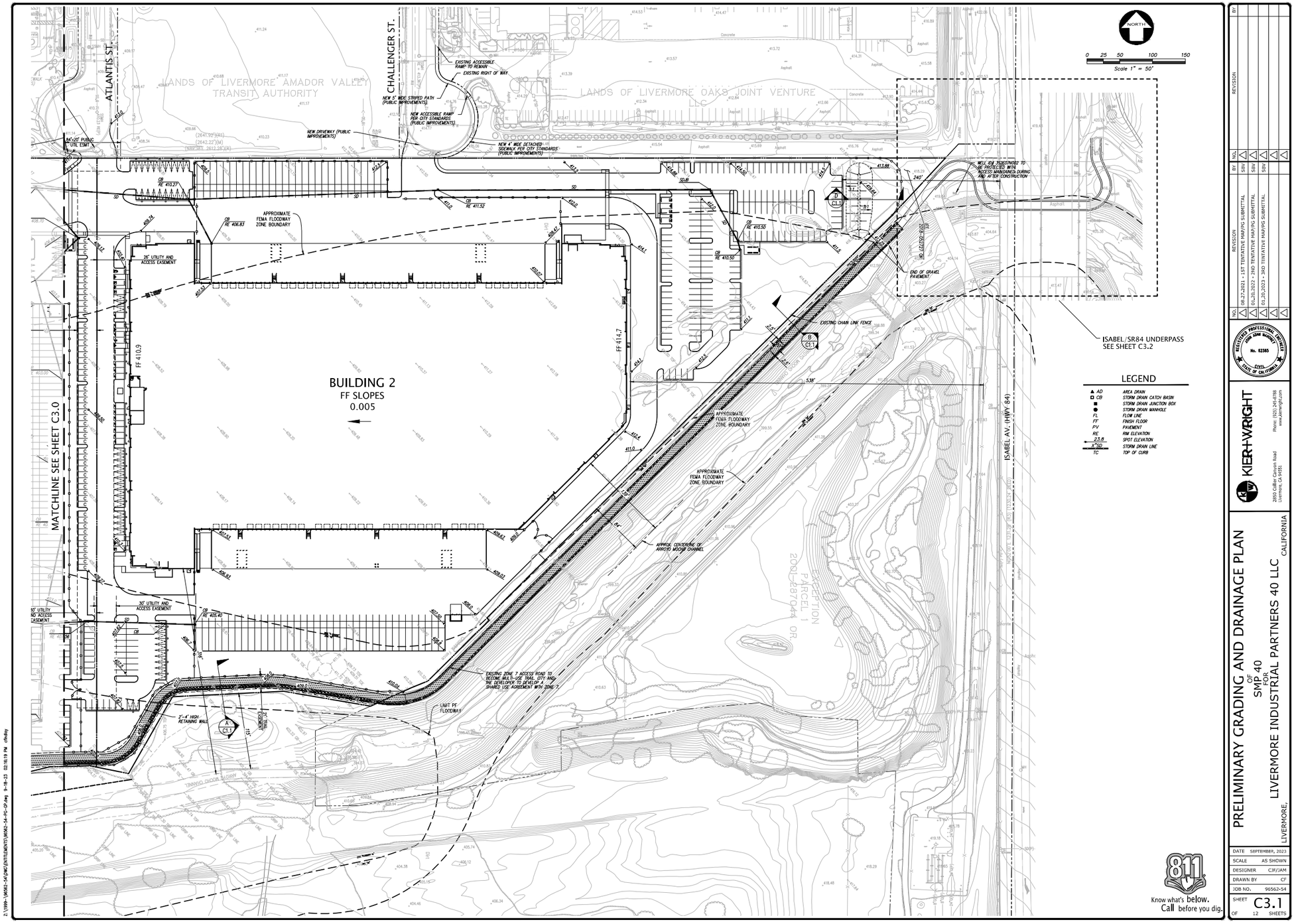
NO.	REVISION	BY
1	08.27.2021 - 1ST TENTATIVE MAP/PG SUBMITTAL	SBV
2	01.20.2022 - 2ND TENTATIVE MAP/PG SUBMITTAL	SBV
3	01.20.2023 - 3RD TENTATIVE MAP/PG SUBMITTAL	SBV

REGISTERED PROFESSIONAL ENGINEER JOHN JOAN MARQUEZ No. 62365 CIVIL STATE OF CALIFORNIA

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

PRELIMINARY GRADING AND DRAINAGE PLAN
OF
SMP 40
FOR
LIVERMORE INDUSTRIAL PARTNERS 40 LLC
LIVERMORE, CALIFORNIA

DATE	SEPTEMBER, 2023
SCALE	AS SHOWN
DESIGNER	CJF/JAM
DRAWN BY	CF
JOB NO.	96562-54
SHEET	C3.0
OF	12 SHEETS



NO.	BY	REVISION
1	SSW	06.27.2021 - 1ST TENTATIVE PARCEL MAP/SPD SUBMITTAL
2	SSW	01.26.2022 - 2ND TENTATIVE PARCEL MAP/SPD SUBMITTAL
3	SSW	01.20.2023 - 3RD TENTATIVE PARCEL MAP/SPD SUBMITTAL

REGISTERED PROFESSIONAL ENGINEER JOHN CLYDE MURRAY No. 62385 CIVIL STATE OF CALIFORNIA

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

PRELIMINARY GRADING AND DRAINAGE PLAN
OF
SMP 40
FOR
LIVERMORE INDUSTRIAL PARTNERS 40 LLC
LIVERMORE, CALIFORNIA

DATE	SEPTEMBER, 2023
SCALE	AS SHOWN
DESIGNER	CJF/JAM
DRAWN BY	CF
JOB NO.	96562-54
SHEET	C3.1
OF	12 SHEETS

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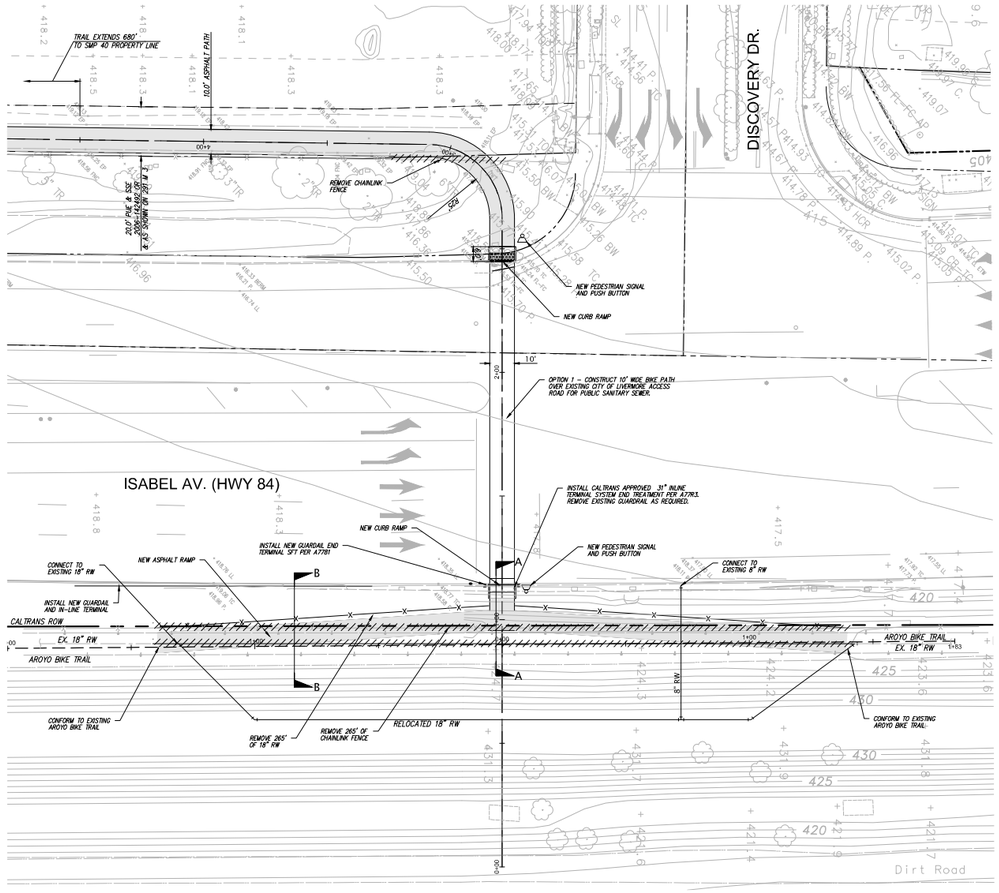
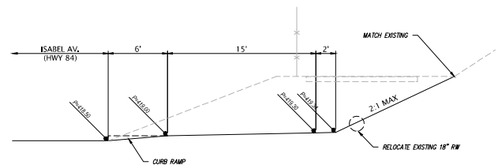
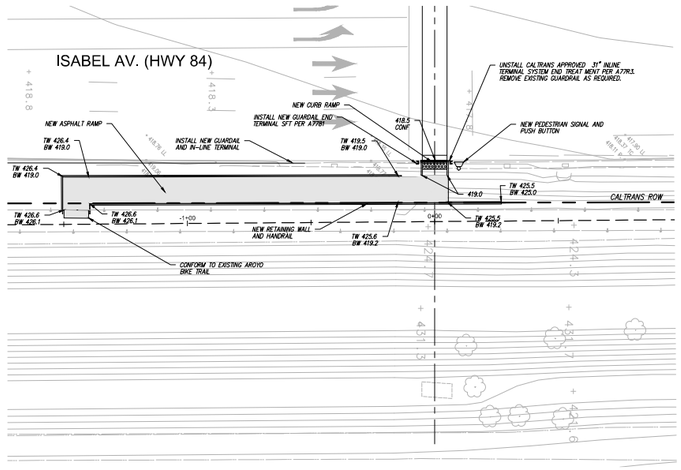


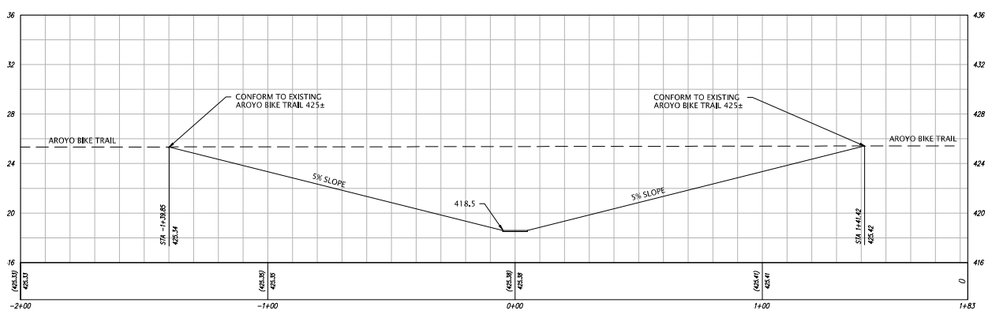
PLAN - RAMP OPTION 1a
SCALE: 1" = 20'



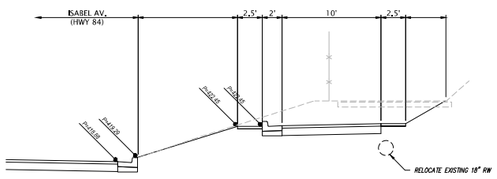
SECTION A-A
SCALE: 1" = 5'



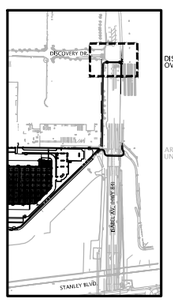
PLAN - RAMP OPTION 1b
SCALE: 1" = 20'



SECTION AROYO BIKE TRAIL
SCALE: 1" = 20' H
1"= 4' V



SECTION B-B
SCALE: 1" = 5'



KEYMAP
SCALE: 1" = 500'

REVISION

NO.	DATE	BY
1	08.27.2021 - 1ST TENTATIVE MAP/PG SUBMITTAL	SBW
2	01.20.2022 - 2ND TENTATIVE MAP/PG SUBMITTAL	SBW
3	01.20.2023 - 3RD TENTATIVE MAP/PG SUBMITTAL	SBW

REGISTERED PROFESSIONAL ENGINEER — No. 63565 — CIVIL — STATE OF CALIFORNIA

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
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ISABEL AV – HWY 84 TRAIL CROSSINGS – OPTION 01
OF
SMP 40
FOR
LIVERMORE INDUSTRIAL PARTNERS 40 LLC
LIVERMORE, CALIFORNIA

DATE	SEPTEMBER, 2023
SCALE	AS SHOWN
DESIGNER	CJF/JAM
DRAWN BY	CF
JOB NO.	96562-54
SHEET	C3.2
OF	12 SHEETS

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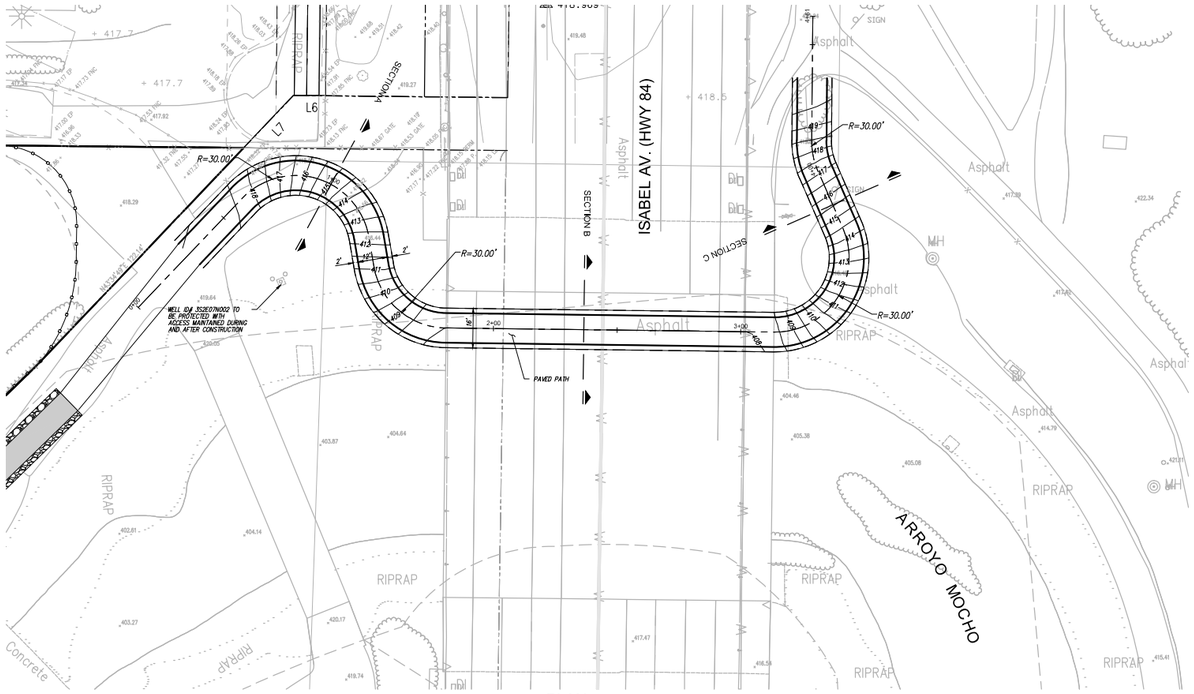
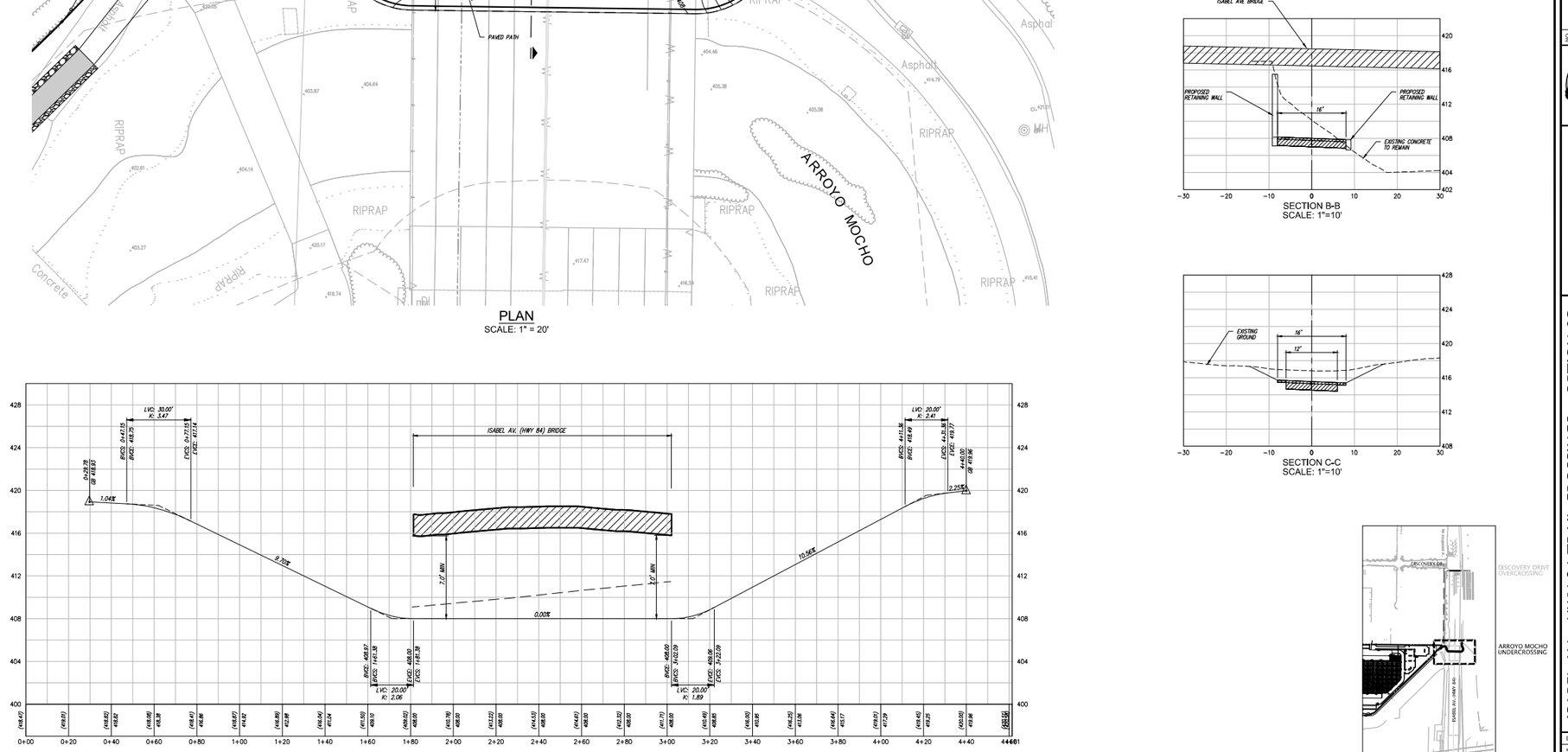
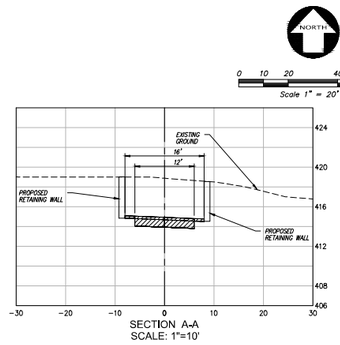


PLAN
SCALE: 1" = 20'



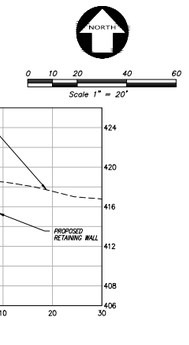
PROFILE
1" = 20' HORIZ.
1" = 4' VERT.

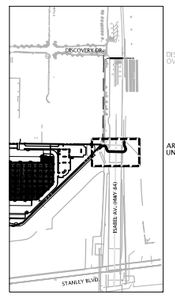


SECTION A-A
SCALE: 1"=10'

SECTION B-B
SCALE: 1"=10'

SECTION C-C
SCALE: 1"=10'





KEYMAP
SCALE: 1" = 500'

NO.	DATE	REVISION	BY
1	08.27.2021	1ST TENTATIVE MAP/PG SUBMITTAL	SBW
2	01.20.2022	2ND TENTATIVE MAP/PG SUBMITTAL	SBW
3	01.20.2023	3RD TENTATIVE MAP/PG SUBMITTAL	SBW

REGISTERED PROFESSIONAL ENGINEER — No. 63565 — CIVIL — STATE OF CALIFORNIA

KIER+WRIGHT
2855 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

ISABEL AV – HWY 84 TRAIL CROSSINGS – OPTION 02
OF
SMP 40
FOR
LIVERMORE INDUSTRIAL PARTNERS 40 LLC
CALIFORNIA
LIVERMORE,

DATE	SEPTEMBER, 2023
SCALE	AS SHOWN
DESIGNER	CJF/JAM
DRAWN BY	CF
JOB NO.	96562-54
SHEET	C3.3
OF	12 SHEETS

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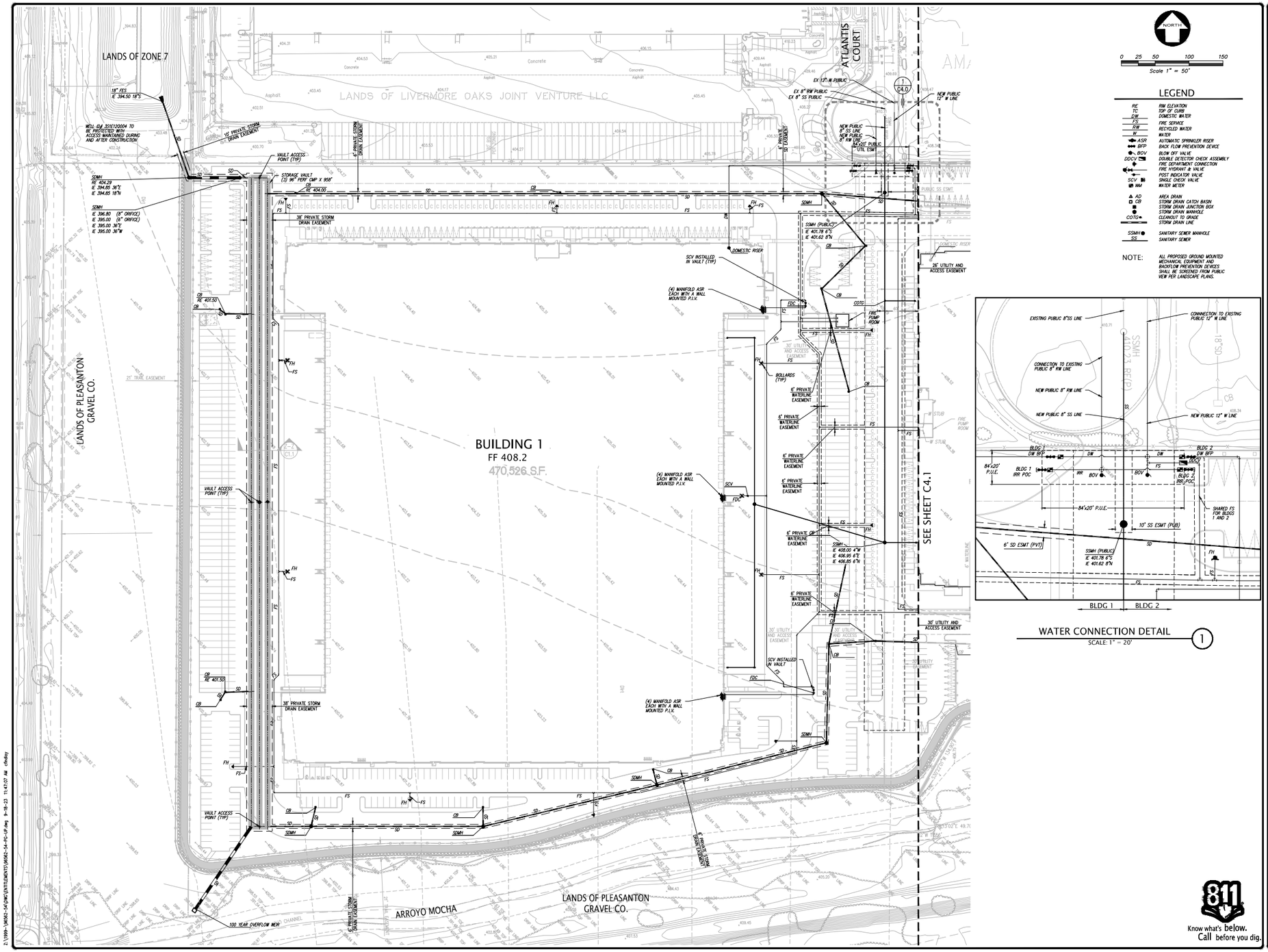

WATER CONNECTION DETAIL (1)
SCALE: 1" = 20'

LEGEND

RE	RIM ELEVATION
TC	TOP OF CURB
DW	DOMESTIC WATER
FS	FIRE SERVICE
RW	RECYCLED WATER
W	WATER
ASR	AUTOMATIC SPRINKLER RISER
BFP	BACK FLOW PREVENTION DEVICE
BOV	BLOW OFF VALVE
DDCV	DOUBLE DETECTOR CHECK ASSEMBLY
	FIRE DEPARTMENT CONNECTION
	FIRE HYDRANT & VALVE
	POST INDICATOR VALVE
SCV	SINGLE CHECK VALVE
WM	WATER METER
AD	AREA DRAIN
CB	STORM DRAIN CATCH BASIN
	STORM DRAIN JUNCTION BOX
	STORM DRAIN MANHOLE
COTG	CLEANOUT TO GRADE
	STORM DRAIN LINE
SSMH	SANITARY SEWER MANHOLE
SS	SANITARY SEWER

NOTE: ALL PROPOSED GROUND MOUNTED MECHANICAL EQUIPMENT AND BACKFLOW PREVENTION DEVICES SHALL BE SCREENED FROM PUBLIC VIEW PER LANDSCAPE PLANS.

Know what's below. Call before you dig.

NO.	REVISION	BY
1	08.27.2021 - 1ST TENTATIVE MAP/PD SUBMITTAL	SMH
2	01.26.2022 - 2ND TENTATIVE MAP/PD SUBMITTAL	SMH
3	01.20.2023 - 3RD TENTATIVE MAP/PD SUBMITTAL	SMH

REGISTERED PROFESSIONAL ENGINEER — JOHN CHRISTOPHER FAHEY — No. 82365 — CIVIL — STATE OF CALIFORNIA

KIER+WRIGHT
2895 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

PRELIMINARY UTILITY PLAN
OF
SMP 40
FOR
LIVERMORE INDUSTRIAL PARTNERS 40 LLC
CALIFORNIA
LIVERMORE,

DATE	SEPTEMBER, 2023
SCALE	AS SHOWN
DESIGNER	CJF/JAM
DRAWN BY	CF
JOB NO.	96562-54
SHEET	C4.0
OF	12 SHEETS

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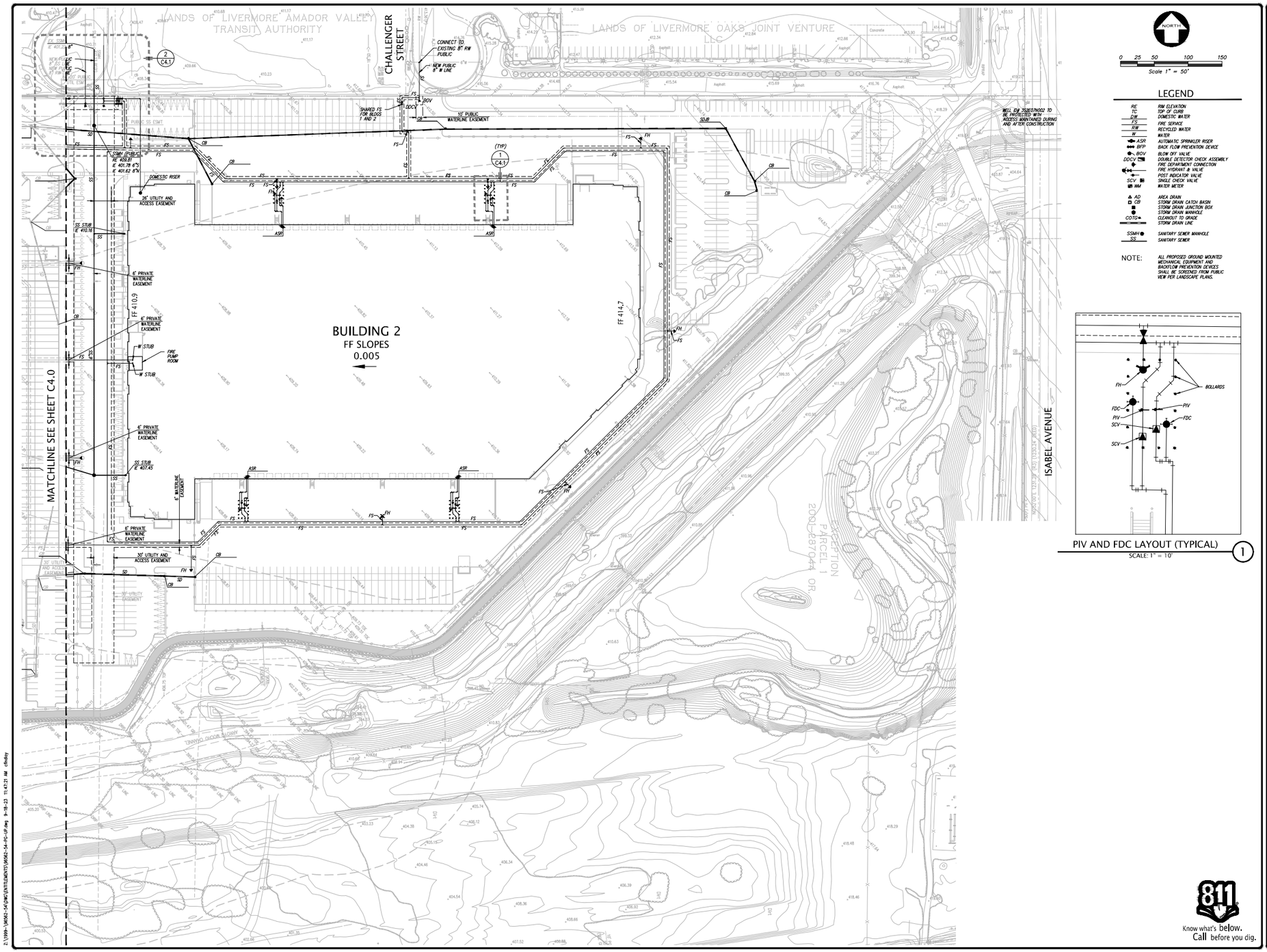
ATTACHMENT 9



NO.	REVISION	BY
1	08.27.2021 - 1ST TENTATIVE MAP/PG SUBMITTAL	SBV
2	01.20.2022 - 2ND TENTATIVE MAP/PG SUBMITTAL	SBV
3	01.20.2023 - 3RD TENTATIVE MAP/PG SUBMITTAL	SBV

REGISTERED PROFESSIONAL ENGINEER JOHN JEAN MARIOTTE No. 82385 CIVIL STATE OF CALIFORNIA

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

PRELIMINARY UTILITY PLAN
OF
SMP 40
FOR
LIVERMORE INDUSTRIAL PARTNERS 40 LLC
LIVERMORE, CALIFORNIA

DATE	SEPTEMBER, 2023
SCALE	AS SHOWN
DESIGNER	CJF/JAM
DRAWN BY	CF
JOB NO.	96562-54
SHEET	C4.1
OF	12 SHEETS

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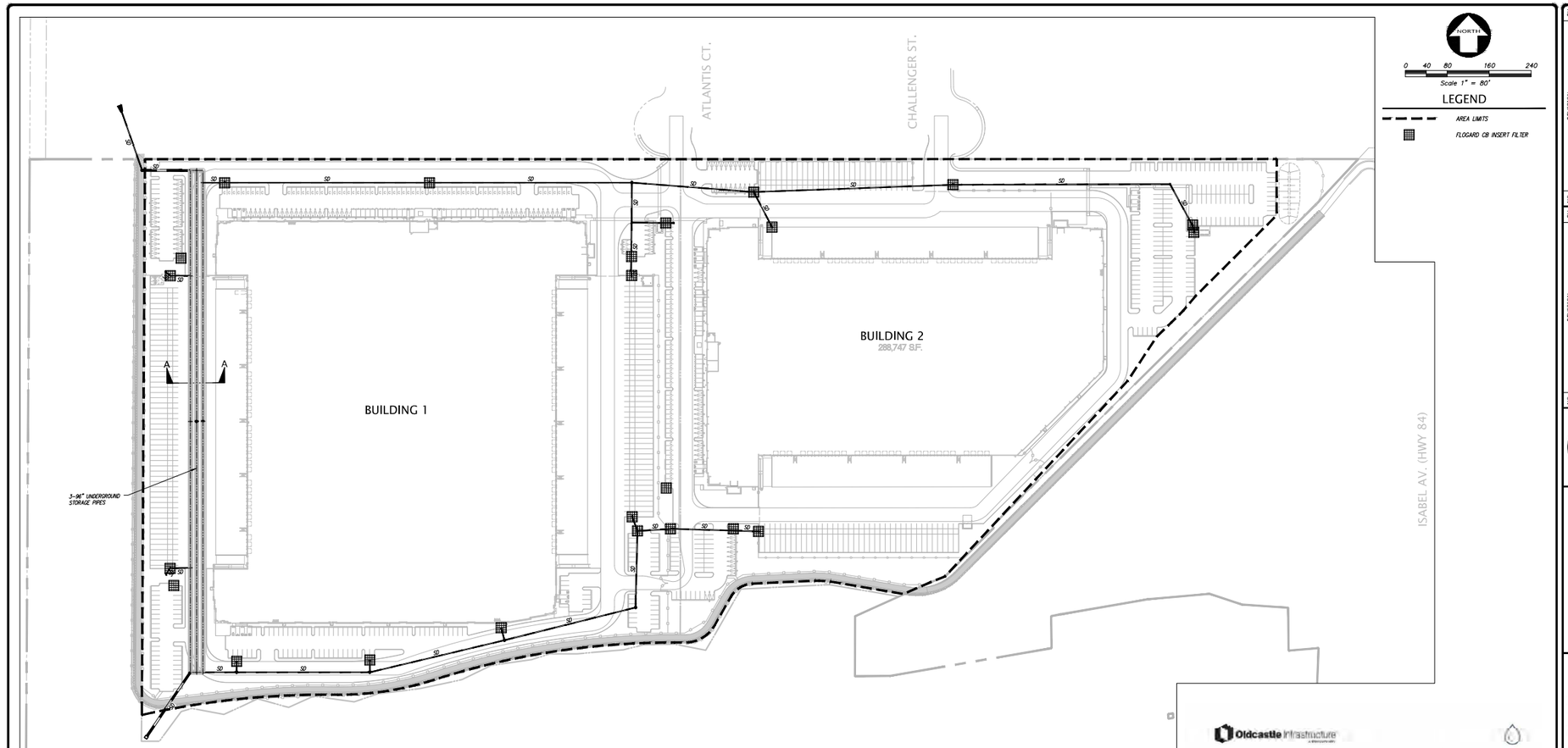


TREATMENT DESCRIPTION

THE PROPOSED TREATMENT MEASURES UTILIZE 100% CAPTURE AND INFILTRATION OF THE WATER QUALITY STORM. INLET FILTERS AT EACH CATCH BASIN PROVIDE PRE-TREATMENT WITH UNDERGROUND PIPING DIRECTING STORM WATER TO AN UNDERGROUND STORAGE VAULT CONSISTING OF 3 - 96" DIAMETER CORRUGATED METAL PIPES THAT ARE 960' LONG SPACED 12' ON CENTER. PIPES ARE BEDDED AND BACKFILLED WITH ¾" CLASS II PERMEABLE ROCK 6" ABOVE AND BELOW PIPE AND 2' ON EACH SIDE. FLOW CONTROL USES AN 6" AND 8" ORIFICES WITH A 5' WIDE SHARP CRESTED WEIR. STORM WATER IS DISCHARGED VIA PIPE TO THE EXISTING ZONE 7 CHANNEL/DETENTION BASIN LOCATED ON THE WEST SIDE OF THE OAKS BUSINESS PARK.

PER SOIL SURVEY MAP, EXISTING SOIL IS CONSISTENT WITH TYPE 'B' SOIL. IN PLAC INFILTRATION TESTING BY CORNERSTONE EARTH GROUP YIELDED RESULTS OF 4.4"-10" PER HOUR.

AREA TABULATION

PERVIOUS	5.80 ACRES
IMPERVIOUS	32.7 ACRES
TOTAL	38.5 ACRES

EFFECTIVE IMPERVIOUS 33.28 ACRES

STORM WATER QUALITY VOLUME

MAP = 16"

MAP ADJUSTMENT
16/18.35 = 0.87

UNIT BASIN STORAGE VOLUME
0.67x0.87 = 0.58" = 0.0483'

EFFECTIVE IMPERVIOUS SURFACE
32.7 + (0.1) x (5.8) = 33.28

WATER QUALITY STORAGE VOLUME
33.28 x 0.0483 = 1.6 AC.FT.

INFILTRATION CALCULATIONS

TOTAL DEPTH TO BE INFILTRATED = 394.5' - 389.3' = 5.2' = 62.4"

REQUIRED DRAW DOWN TIME = 48 HR

MINIMUM INFILTRATION RATE REQUIRED = 62.4" / 48 HR = 1.3 IN/HR

MEASURED INFILTRATION RATE = 4.4 IN/HR

FACTOR OF SAFETY 4.4 IN/HR / 1.3 IN/HR = 3.3

STORAGE CALCULATIONS

CROSS SECTION AREAS

PIPE AREA
96" PIPE @ 4.7' DEPTH = 30.7 SF
3 x 30.7 SF = 92.1 SF (TOTAL PIPE AREA)

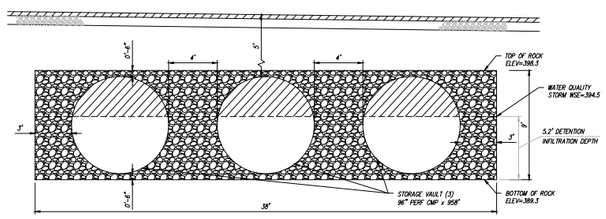
ROCK AREA
H x W (TOTAL PIPE AREA)
(5.2' x 38') - 92.1 SF = 105.5 SF

EFFECTIVE ROCK AREA @ 35% VOIDS = 36.9 SF

TOTAL EFFECTIVE CROSS SECTION AREA
92.1 SF + 36.9 SF = 129 SF

TOTAL SECTION LENGTH = 960'

TOTAL VOLUME = 123, 840 CF or 2.8 AC.FT.



STORAGE VAULT SECTION A-A

NOT TO SCALE

INLET FILTRATION

NO.	REVISION	BY
△	08.27.2021 - 1ST TENTATIVE MAP/PG SUBMITTAL	SBV
△	01.20.2022 - 2ND TENTATIVE MAP/PG SUBMITTAL	SBV
△	01.20.2023 - 3RD TENTATIVE MAP/PG SUBMITTAL	SBV

REGISTERED PROFESSIONAL ENGINEER JOHN JOHN MARKET No. 82385 CIVIL STATE OF CALIFORNIA

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

STORM WATER QUAILITY CONTROL PLAN
OF
SMP 40
FOR
LIVERMORE INDUSTRIAL PARTNERS 40 LLC
LIVERMORE, CALIFORNIA

DATE	SEPTEMBER, 2023
SCALE	AS SHOWN
DESIGNER	CJF/JAM
DRAWN BY	CF
JOB NO.	96562-54
SHEET	C5.0
OF	12 SHEETS

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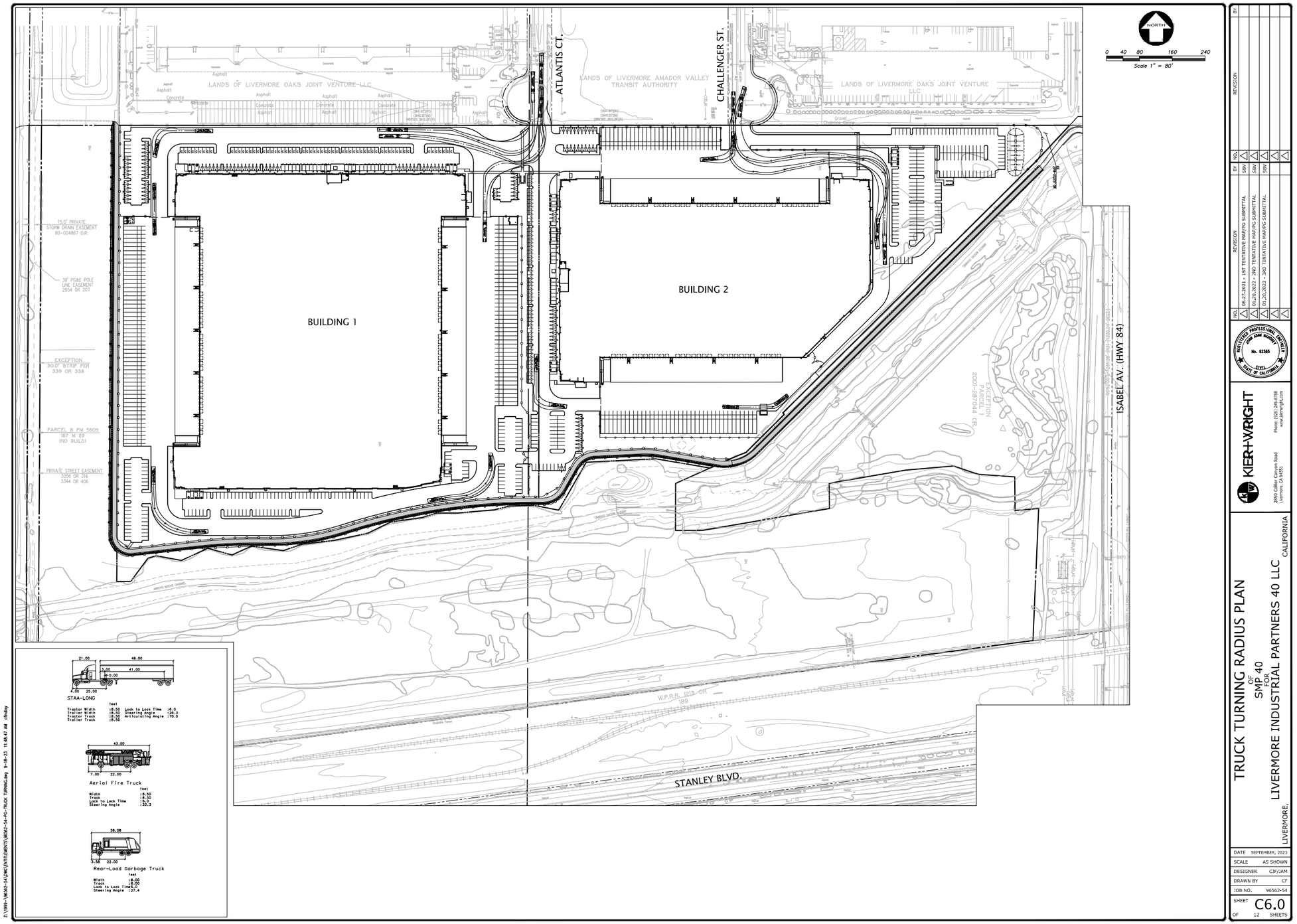

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NO.	REVISION	BY
1	08.27.2021 • 1ST TENTATIVE MAP/PG SUBMITTAL	SBW
2	01.20.2022 • 2ND TENTATIVE MAP/PG SUBMITTAL	SBW
3	01.20.2023 • 3RD TENTATIVE MAP/PG SUBMITTAL	SBW

REGISTERED PROFESSIONAL ENGINEER — No. 62365 — CIVIL — STATE OF CALIFORNIA

KIER+WRIGHT

2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

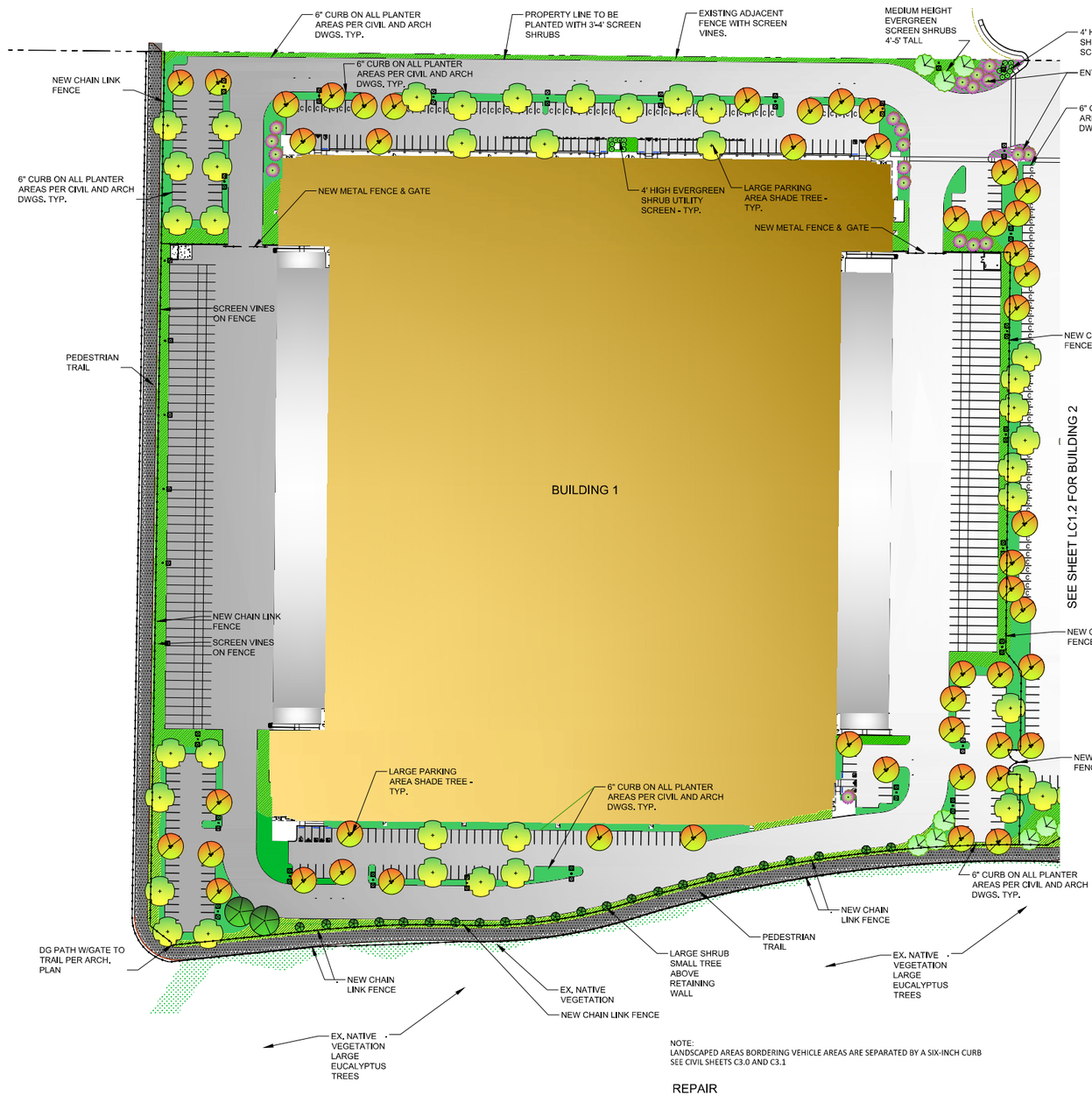
TRUCK TURNING RADIUS PLAN

OF SMP 40 FOR

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

LIVERMORE, CALIFORNIA

DATE	SEPTEMBER, 2023
SCALE	AS SHOWN
DESIGNER	CJF/JAM
DRAWN BY	CF
JOB NO.	96562-54
SHEET	C6.0
OF	12 SHEETS



LANDSCAPE CALCULATIONS BUILDING 1

TOTAL SITE AREA: 24.1 ACRES
TOTAL BUILDING PAD AREA =470,721 S.F.
SITE AREA LANDSCAPE REQUIRED EQUAL TO 5% OF BLDG. PAD AREA = 23,536 S.F.
SITE AREA LANDSCAPE PROVIDED: 85,810 S.F. (2,771 S.F. NON IRRIGATED BIO-SWALE)
BUILDING FACADE FACING STREET LANDSCAPE REQUIRED 7' WIDE (PROVIDED)
PERIMETER LANDSCAPE REQUIRED 5' WIDE (PROVIDED)
TOTAL PARKING AREA = 124,118 S.F.
PARKING AREA LANDSCAPE REQUIRED 16% OF PARKING AREA = 19,858 S.F.
PARKING LOT AREA LANDSCAPE PROVIDED = 22,440 S.F. (18%)
PARKING SPACES PROVIDED = 382
PARKING AREA TREES REQUIRED 1/6 SPACES = 64
PARKING AREA TREES PROVIDED = 64

LANDSCAPE LEGEND

- LARGE SHRUB SCREEN
- QUERCUS ILEX
- SYCAMORE 'COLUMBIA'
- CHINESE PISTACHE
- SWAN HILL OLIVE
- BRISBANE BOX
- CRAPE MYRTLE
- EVERGREEN SCREEN SHRUBS 5' MIN. HT.
- LOW TO MEDIUM SHRUBS FLOWERING w/ ACCENT PERENNIALS & GRASSES
- LOW PLANTING 12"- 4" TALL GROUNDCOVER
- PROJECT ACCENT PLANTING LOW FLOWERING SHRUBS, GROUND COVER AND PERENNIAL ACCENTS W/BARK MULCH
- SCREEN PLANTING TALL SCREEN SHRUBS 5'-8'
- SEEDED PER NATIVE SHRUBS & GRASSES HYDROSEED MIX

SEE SHEET LC1.2 FOR PRELIMINARY PLANT LIST

WATER EFFICIENT LANDSCAPE REQUIREMENTS

ALL IRRIGATION PERMANENT SHALL BE AUTOMATIC TIMER CONTROLLED, PERMANENTLY IRRIGATED SHRUBS AND TREES SHALL BE DRIPBUBBLER IRRIGATED.
AUTOMATIC CONTROLLER ET DATA, REPEAT CYCLING
IRRIGATION ZONES PER PLANT WATER REQUIREMENTS
RAIN SENSORITO BE SPECIFIED
SLOPES LESS THAN 5' IN HEIGHT
SOIL AMENDMENTS TO BE INCORPORATED
PLANTER SURFACE AREAS TO BE MULCHED
WATER USAGE TO MEET STATE WATER EFFICIENT LANDSCAPE STANDARD

PRELIMINARY LANDSCAPE AREA PER HYDROZONE BUILDING 6(SEE ATTACHED MWELO CALCULATIONS)

1 BIO-SWALES	2,771 S.F.	VL (.1)	ROTOR IRRIGATION (RECLAIMED)
2 NEW TREES	7,160 S.F.	L (.3)	DEEP ROOT BUBBLERS (RECLAIMED)
3 NEW SHRUB AREA	56,909 S.F.	L (.3)	DRIP IRRIGATION (RECLAIMED)
4 NEW SHRUB AREA	18,970 S.F.	L (.2)	DRIP IRRIGATION (RECLAIMED)
TOTAL LANDSCAPE AREA:.	85,810 S.F.		

Preliminary Water Use: IRRIGATED AREAS ONLY (85,810 S.F.)
Maximum Applied Water Allowance (MAWA) = 1,035,986
Estimated Total Water Use (ETWU) = 772,209
ETWU complies with MAWA

NOTE: 82% OF THE PLANTS PER LEGEND ARE LOW WATER USING PLANTS. MEDIUM WATER USING PLANTS SHALL BE UTILIZED IN PROJECT ACCENT AREAS AND OVERALL SHALL NOT EXCEED 25% OF THE TOTAL PLANT COUNTS. PLANTS SHALL BE SPACED PER THEIR MATURE HABIT (SEE LEGEND) TO MINIMIZE PRUNING AND TO AVOID IMPACTS TO SITE ELEMENTS.

INSTALL 2" X 6' RECYCLED PLASTIC HEADER AT EDGE OF ALL SEEDED AREAS NOT ADJACENT TO BACK OF CURB. HEADER STAKED. SHALL BE EARTHTONE COLORING AND FLEXIBLE TO MAKE SWEEPING CURVES AS SHOWN ON THE PLANS. HEADER SHALL BE INSTALLED ½" ABOVE FINISHED GRADE. FEATHER BARK MULCH AT EDGE TO MATCH HEADER HEIGHT.

NOTE:
LANDSCAPED AREAS BORDERING VEHICLE AREAS ARE SEPARATED BY A SIX-INCH CURB
SEE CIVIL SHEETS C3.0 AND C3.1

REPAIR

ALL EXISTING AND OR NEW LANDSCAPE SHALL BE PROTECTED DURING CONSTRUCTION. THE CONTRACTOR OR THE OWNER WILL BE RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF LANDSCAPING IMPROVEMENTS DAMAGED BY CONTRACTORS.

MAINTENANCE

1. ALL LANDSCAPING SHALL BE MAINTAINED IN A NEAT, CLEAN, AND HEALTHY CONDITION. THIS SHALL INCLUDE PROPER PRUNING, MOWING OF LAWNS, WEEDING, REMOVAL OF LITTER, FERTILIZING, REPLACEMENT OF PLANTS WHEN NECESSARY, AND THE REGULAR WATERING OF ALL PLANTINGS
2. LOT OWNERS SHALL REQUIRE SIXTY (60) DAY-0CONTRACTOR-MAINTENANCDE CLAUSE IN ALL LANDSCAPING CONTRACTS
3. LOT OWNERS SHALL REQUIRE A ONE (1) YEAR CONTRACTOR GUARANTEE ON TREE WATERING AND IRRIGATION EQUIPMENT IN ALL LANDSCAPE CONTRACTS

PRELIMINARY LANDSCAPE PLAN

N

Scale 1" = 30 ft

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

GreenDesign Landscape Architects, Inc.
1464 Popinjay Drive
Reno, NV.
p: 775 829 1364
email: bhatch00@charter.net

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

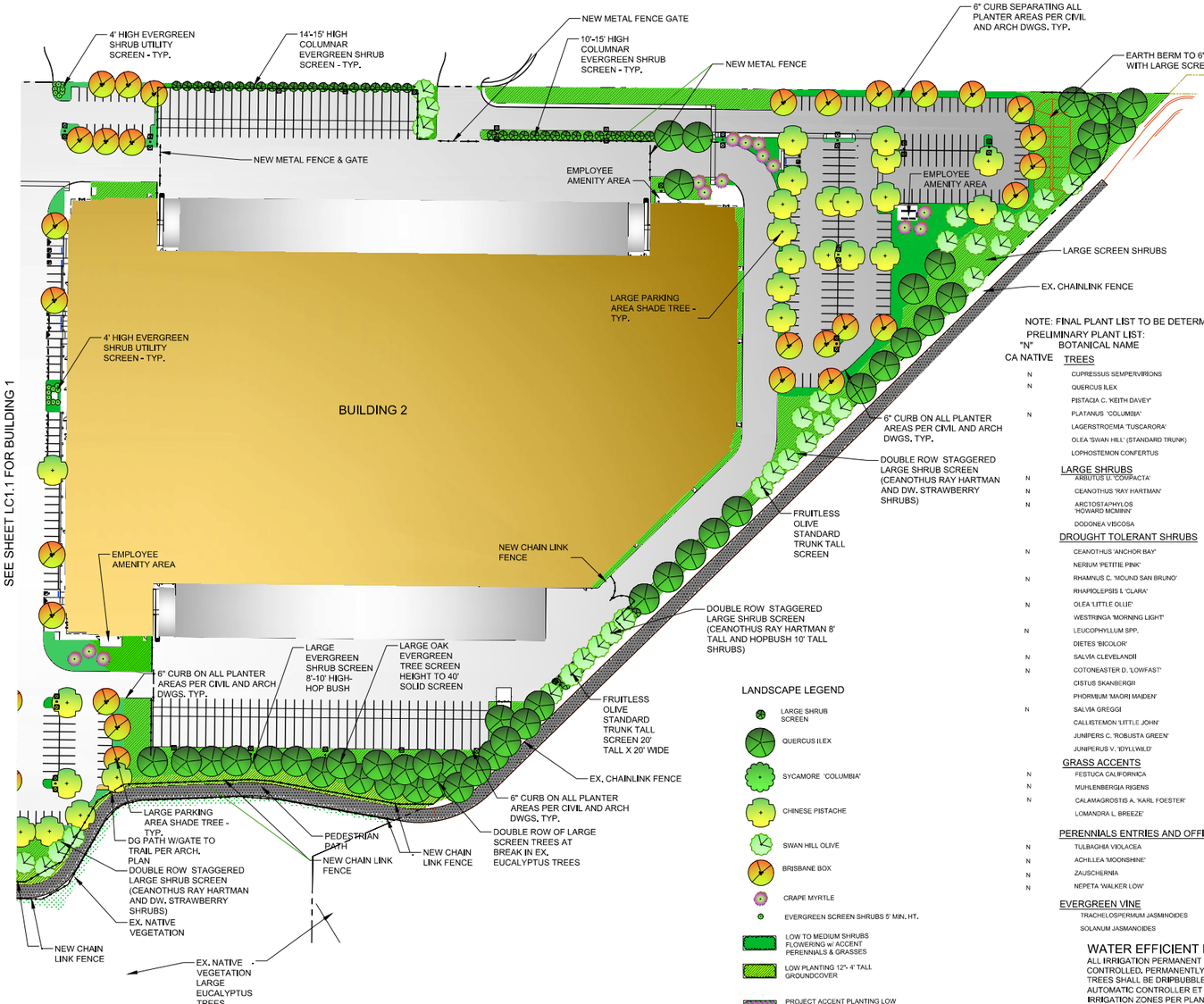
Title: PRELIMINARY LANDSCAPE PLAN

Project Number:	19177
Drawn by:	SH
Date:	08/23/2021

Revision:

- REVISED PER SITE 12-3-21
- REVISED PER COMMENTS 1-13-22
- REVISED PER SITE 6-21-22
- REVISED PER COMMENTS 11-7-22
- ADDED SITE LIGHTING 1-6-23
- ADDED FENCE CALLOUTS 2-24-23
- REVISED PER COMMENTS 5-23-23
- REVISED 9-15-23

Sheet: LC1.1



PRELIMINARY LANDSCAPE PLAN

N

Scale 1" = 50 ft

LANDSCAPE LEGEND

- LARGE SHRUB SCREEN
- QUERCUS ILEX
- SYCAMORE 'COLUMBIA'
- CHINESE PISTACHE
- SWAN HILL OLIVE
- BRISBANE BOX
- CRAPE MYRTLE
- EVERGREEN SCREEN SHRUBS 5' MIN. HT.
- LOW TO MEDIUM SHRUBS FLOWERING w/ ACCENT PERENNIALS & GRASSES
- LOW PLANTING 12"- 4' TALL GROUNDCOVER
- PROJECT ACCENT PLANTING LOW FLOWERING SHRUBS, GROUND COVER AND PERENNIAL ACCENTS WBARK MULCH
- SCREEN PLANTING TALL SCREEN SHRUBS 5'-8'
- SEEDED PER NATIVE SHRUBS & GRASSES HYDROSEED MIX

LANDSCAPE CALCULATIONS BUILDING 2

TOTAL SITE AREA: 16.5 ACRES
TOTAL BUILDING PAD AREA = 288,854 S.F.
SITE AREA LANDSCAPE REQUIRED EQUAL TO 5% OF BLDG. PAD AREA = 14,442 S.F.
SITE AREA LANDSCAPE PROVIDED: 97,281 S.F.
PERIMETER LANDSCAPE REQUIRED 5' WIDE (PROVIDED)
TOTAL PARKING AREA = 86,931 S.F.
PARKING AREA LANDSCAPE REQUIRED 16% OF PARKING AREA = 14,835 S.F.
PARKING LOT AREA LANDSCAPE PROVIDED = 14,835 S.F. (17%)
PARKING SPACES PROVIDED = 251
PARKING AREA TREES REQUIRED 1/6 SPACES = 42
PARKING AREA TREES PROVIDED = 44

NOTE: FINAL PLANT LIST TO BE DETERMINED UPON RESULTS OF SOIL SUITABILITY ANALYSIS

PRELIMINARY PLANT LIST:

"N" CA NATIVE	BOTANICAL NAME	COMMON NAME	SIZE	WATER REGIME/ HYDROZONE	MATURE HABIT H X W
	TREES				
N	CUPRESSUS SEMPERVIRENS	ITALIAN CYPRESS	15 GAL.	L	70' X 6'
N	QUERCUS ILEX	HOLLY LIVE OAK	15 GAL.	L	50' X 50'
	PISTACIA C. 'KEITH DAVEY'	CHINESE PISTACHE	24" BOX	L	50' X 40'
N	PLATANUS 'COLUMBIA'	SYCAMORE	24" BOX	L	55' X 50'
	LAGERSTROEMIA 'TUSCARORA'	CRAPE MYRTLE	24" BOX	L	15' X 15'
	OLEA 'SWAN HILL' (STANDARD TRUNK)	FRUITLESS OLIVE	15 GAL.	L	20' X 20'
	LOPHOSTEMON CONFERTUS	BRISBANE BOX	24" BOX	L	30' X 40'
	LARGE SHRUBS				
N	ARBUTUS U. 'COMPACTA'	DW. STRAWBERRY	5 GAL.	L	6' X 6'
N	CEANOTHUS 'RAY HARTMAN'	CEANOTHUS	5 GAL.	L	8' X 8'
N	ARCTOSTAPHYLOS 'HOWARD MCMINN'	MANZANITA	5 GAL.	L	8' X 8'
	DODONEA VISCOSA	HOP BUSH	5 GAL.	L	10' X 10'
	DROUGHT TOLERANT SHRUBS				
N	CEANOTHUS 'ANCHOR BAY'	PROSTRATE WILD LILAC	5 GAL.	L	2' X 6'
	NERIUM 'PETITIE PINK'	OLEANDER	5 GAL.	L	6' X 5'
N	RHAMNUS C. 'MOUND SAN BRUNO'	COFFEEBERRY	5 GAL.	L	5' X 6'
	RHAPIOLEPSIS I. 'CLARA'	INDIA HAWTHORNE	5 GAL.	L	5' X 5'
N	OLEA 'LITTLE OLLIE'	DW. OLIVE	5 GAL.	L	6' X 6'
	WESTRINGA 'MORNING LIGHT'	COAST ROSEMARY	5 GAL.	L	2' X 3'
N	LEUCOPHYLLUM SPP.	TEXAS RANGER	5 GAL.	L	VARIES'
	DIETES 'BICOLOR'	FORTNIGHT LILY	5 GAL.	L	2' X 3'
N	SALVIA CLEVELANDII	SALVIA	5 GAL.	L	3' X 4'
N	COTONEASTER D. 'LOWFAST'	COTONEASTER	5 GAL.	L	1' X 4'
	CISTUS SKANBERGII	ROCK ROSE	5 GAL.	L	3' X 4'
	PHORMIUM 'MAORI MAIDEN'	NZ. FLAX	5 GAL.	L	5' X 5'
N	SALVIA GREGGI	SALVIA	5 GAL.	L	2' X 2'
	CALLISTEMON 'LITTLE JOHN'	DW. BOTTLEBRUSH	5 GAL.	L	3' X 4'
	JUNIPERS C. 'ROBUSTA GREEN'	COLUMNAR JUNIPER	5 GAL.	L	4' X 14'
	JUNIPERUS V. 'IDYLLWILD'	COLUMNAR JUNIPER	5 GAL.	L	5' X 15'
	GRASS ACCENTS				
N	FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL.	L	2' X 2'
N	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL	L	4' X 4'
N	CALAMAGROSTIS A. 'KARL FOESTER'	FEATHERED	1 GAL.	L	2' X 3'
	LOMANDRA L. 'BREEZE'	BREEZEMAT RUSH	1 GAL.	L	3 X 3
	PERENNIALS ENTRIES AND OFFICE ACCENT				
N	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL.	L	2' X 2'
N	ACHILLEA 'MOONSHINE'	YARROW	1 GAL.	L	1.5' X 1.5'
N	ZAUSCHERNIA	CALIFORNIA FUSCHIA	1 GAL.	L	3' X 3'
N	NEPETA 'WALKER LOW'	CATMINT	1 GAL.	L	1' X 3'
	EVERGREEN VINE				
	TRACHELOSPERMUM JASMINOIDES	STAR JASMINE	5 GAL.	M	12' X 12'
	SOLANUM JASMANOIDES	POTATOE VINE	1 GAL	L	8' X 12'

WATER EFFICIENT LANDSCAPE REQUIREMENTS

ALL IRRIGATION PERMANENT SHALL BE AUTOMATIC TIMER CONTROLLED, PERMANENTLY IRRIGATED SHRUBS AND TREES SHALL BE DRIP/BUBBLER IRRIGATED.
AUTOMATIC CONTROLLER ET DATA, REPEAT CYCLING
IRRIGATION ZONES PER PLANT WATER REQUIREMENTS
RAIN SENSORTO BE SPECIFIED
SLOPES LESS THAN 5' IN HEIGHT
SOIL AMENDMENTS TO BE INCORPORATED
PLANTER SURFACE AREAS TO BE MULCHED
WATER USAGE TO MEET STATE WATER EFFICIENT LANDSCAPE STANDARD

PRELIMINARY LANDSCAPE AREA PER HYDROZONE BUILDING 6(SEE ATTACHED MWELO CALCULATIONS)

1 BIO-SWALES	2,831 S.F.	VL (.1)	ROTOR IRRIGATION (RECLAIMED)
2 NEW TREES	6,040 S.F.	L (.3)	DEEP ROOT BUBBLERS (RECLAIMED)
3 NEW SHRUB AREA	66,307 S.F.	L (.3)	DRIP IRRIGATION (RECLAIMED)
4 NEW SHRUB AREA	22,103 S.F.	L (.2)	DRIP IRRIGATION (RECLAIMED)
TOTAL LANDSCAPE AREA:.	97,281 S.F.		

Preliminary Water Use: IRRIGATED AREAS ONLY (97,281 S.F.)
Maximum Applied Water Allowance (MAWA) = 1,174,476
Estimated Total Water Use (ETWU) = 875,434
ETWU complies with MAWA

NOTE: 82% OF THE PLANTS PER LEGEND ARE LOW WATER USING PLANTS.
MEDIUM WATER USING PLANTS SHALL BE UTILIZED IN PROJECT ACCENT AREAS AND OVERALL SHALL NOT EXCEED 25% OF THE TOTAL PLANT COUNTS.
PLANTS SHALL BE SPACED PER THEIR MATURE HABIT (SEE LEGEND) TO MINIMIZE PRUNING AND TO AVOID IMPACTS TO SITE ELEMENTS.

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

GreenDesign Landscape Architects, Inc.
1464 Popinjay Drive
Reno, NV.
p: 775 829 1364
email: bhatch00@charter.net

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title:

Project Number:	19177
Drawn by:	BH
Date:	08/23/2021

Revision:
- REVISED PER SITE 12-3-21
- REVISED PER COMMENTS 1-13-22
- REVISED PER SITE 6-21-22
- ADDED SITE LIGHTING 1-6-23
- REVISED PER COMMENTS 5-23-23
- REVISED PER COMMENTS 8-14-23
- REVISED 9-15-23

Sheet:

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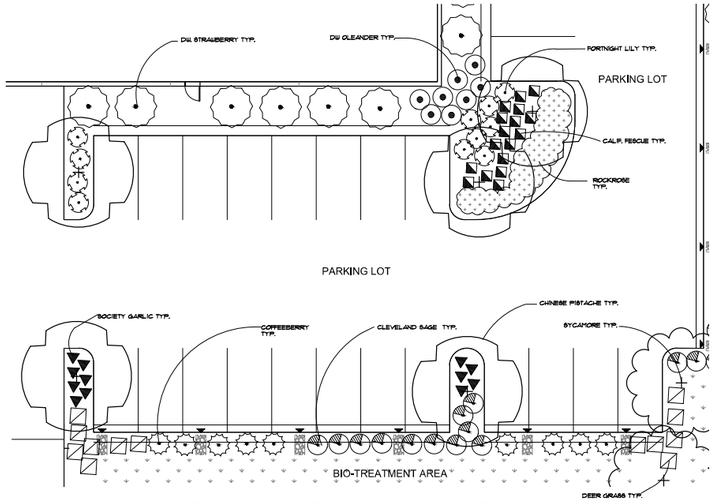
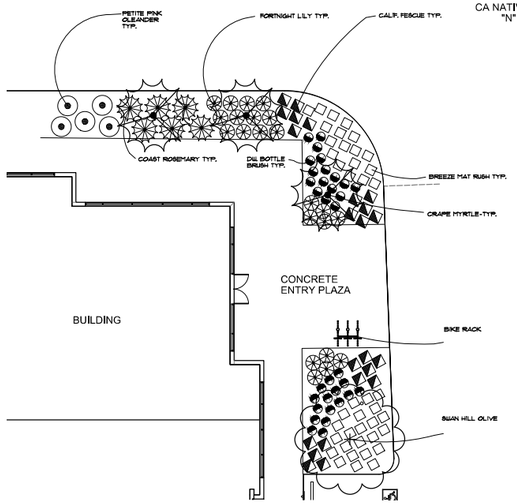


TYPICAL PARKING AREA DETAIL

SCALE: 1" = 10'-0"



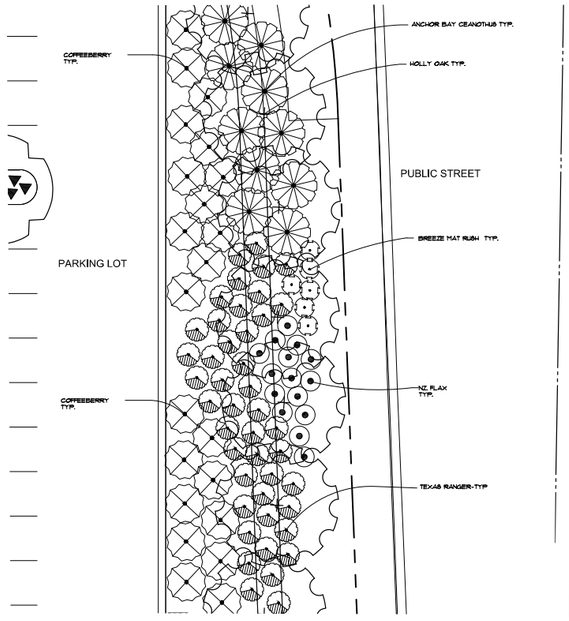
TYPICAL OFFICE ENTRY DETAIL

SCALE: 1" = 10'-0"

NOTE: FINAL PLANT LIST TO BE DETERMINED UPON RESULTS OF SOIL SUITABILITY ANALYSIS

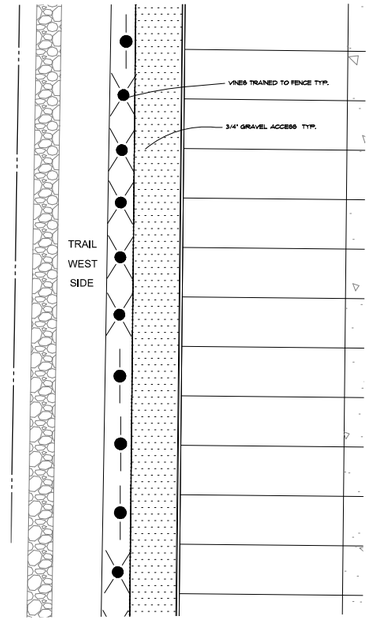
PRELIMINARY PLANT LIST:

CA NATIVE "N"	BOTANICAL NAME	COMMON NAME	SIZE	WATER REGIME/ HYDROZONE	MATURE HABIT H X W
	TREES				
N	CALOCEDRUS DECURRENS	INCENSE CEDAR	15 GAL.	L	40' X15"
N	QUERCUS ILEX	HOLLY LIVE OAK	15 GAL.	L	50' X 50'
	PISTACIA C. 'KEITH DAVEY'	CHINESE PISTACHE	24" BOX	L	50' X 40'
N	PLATANUS 'COLUMBIA'	SYCAMORE	24" BOX	L	55' X 50'
	LAGERSTROEMIA SPECIES	CRAPE MYRTLE	24" BOX	L	VARIES
	OLEA 'SWAN HILL'	FRUITLESS OLIVE	15 GAL.	L	20' X 20'
	CUPRESSUS SEMPERVIRONS	ITALIAN CYPRESS	15 GAL.	L	65' X 8'
	LARGE SHRUBS				
N	ARBUTUS U. 'COMPACTA'	DW. STRAWBERRY	5 GAL.	L	6' X 6'
N	CEANOTHUS 'RAY HARTMAN'	CEANOTHUS	5 GAL.	L	8' X 8'
N	ARCTOSTAPHYLOS 'HOWARD MCMINN'	MANZANITA	5 GAL.	L	8' X 8'
	DODONEA VISCOSA	HOP BUSH	5 GAL.	L	10' X 10'
	DROUGHT TOLERANT SHRUBS				
N	CEANOTHUS 'ANCHOR BAY'	PROSTRATE WILD LILAC	5 GAL.	L	2' X 6'
	NERIUM 'PETITTE PINK'	OLEANDER	5 GAL.	L	6' X 5'
N	RHAMNUS C. 'MOUND SAN BRUNO'	COFFEEBERRY	5 GAL.	L	5' X 6'
	RHAPIOLEPSIS I. 'CLARA'	INDIA HAWTHORNE	5 GAL.	L	5' X 5'
N	OLEA 'LITTLE OLLIE'	DW. OLIVE	5 GAL.	L	6' X 6'
	WESTRINGA 'MORNING LIGHT'	COAST ROSEMARY	5 GAL.	L	2' X 3'
N	LEUCOPHYLLUM SPP.	TEXAS RANGER	5 GAL.	L	VARIES'
	DIETES 'BICOLOR'	FORTNIGHT LILY	5 GAL.	L	2' X 3'
N	SALVIA CLEVELANDII	SALVIA	5 GAL.	L	3' X 4'
N	COTONEASTER D. 'LOWFAST'	COTONEASTER	5 GAL.	L	1' X 4'
	CISTUS SKANBERGII	ROCK ROSE	5 GAL.	L	3' X 4'
	PHORMIUM 'MAORI MAIDEN'	NZ. FLAX	5 GAL.	L	5' X 5'
N	SALVIA GREGGI	SALVIA	5 GAL.	L	2' X 2
	CALLISTEMON 'LITTLE JOHN'	DW. BOTTLEBRUSH	5 GAL.	L	3' X 4'
	JUNIPERS C. 'ROBUSTA GREEN'	COLUMNAR JUNIPER	5 GAL.	L	4' X 14'
	JUNIPERUS V. 'IDYLLWILD'	COLUMNAR JUNIPER	5 GAL.	L	5' X 15'
	GRASS ACCENTS				
N	FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL.	L	2' X 2'
N	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL.	L	4' X 4'
N	CALAMAGROSTIS A. 'KARL FOESTER'	FEATHEREED	1 GAL.	L	2' X 3'
	LOMANDRA L. BREEZE'	BREEZEMAT RUSH	1 GAL.	L	3 X 3
	PERENNIALS ENTRIES AND OFFICE ACCENT				
N	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL.	L	2' X 2'
N	ACHILLEA 'MOONSHINE'	YARROW	1 GAL.	L	1.5' X 1.5'
N	ZAUSCHERNIA	CALIFORNIA FUSCHIA	1 GAL.	L	3' X 3'
N	NEPETA 'WALKER LOW'	CATMINT	1 GAL.	L	1' X 3'
	EVERGREEN VINE				
	TRACHELOSPERMUM JASMINOIDES	STAR JASMINE	5 GAL.	M	12' X 12'
	SOLANUM JASMANOIDES	POTATOE VINE	1 GAL.	L	8' X 12'



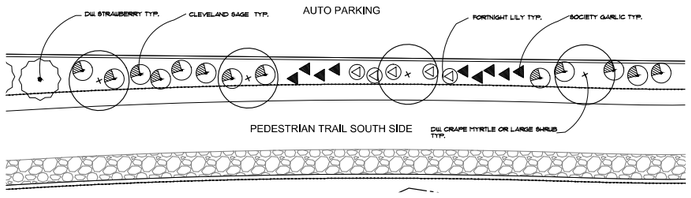
TYPICAL FRONTAGE DETAIL

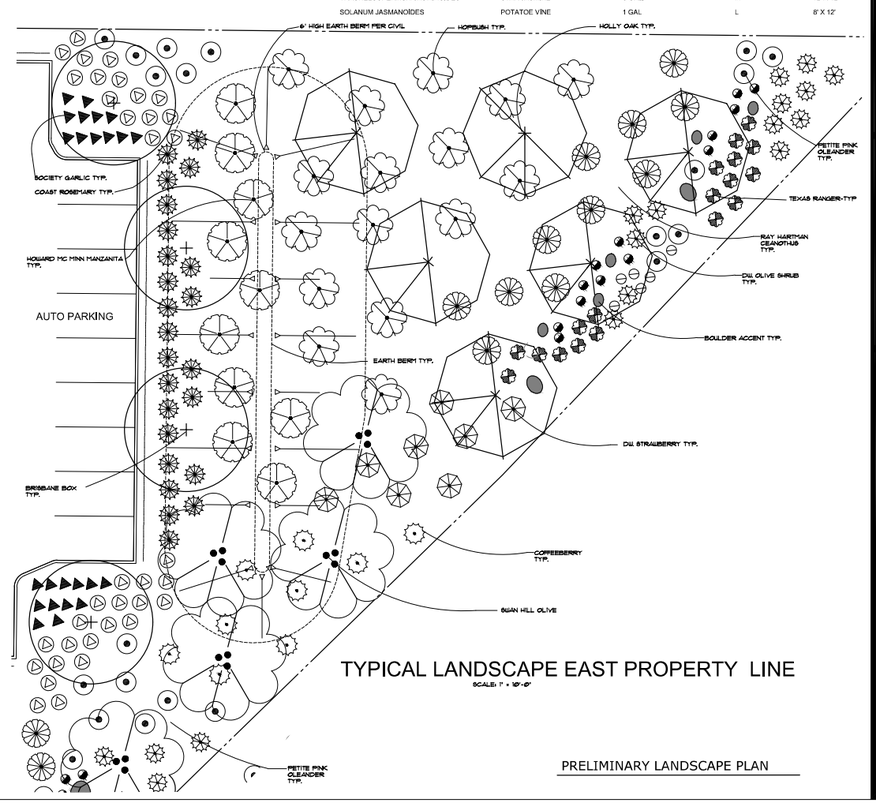
SCALE: 1" = 10'-0"



TYPICAL TRAIL SCREEN DETAIL

SCALE: 1" = 10'-0"





TYPICAL LANDSCAPE EAST PROPERTY LINE

SCALE: 1" = 10'-0"

PRELIMINARY LANDSCAPE PLAN

HPA architecture

hpa, inc.
600 grand ave. suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

GreenDesign Landscape Architects, Inc.
1464 Popinjay Drive
Reno, NV.
p: 775 829 1364
email: bhatch00@charter.net

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title:

PRELIMINARY LANDSCAPE PLAN

Project Number:	19177
Drawn by:	BH
Date:	08/23/2021

Revision:

REVISED 12-3-21
REVISED 12-22-21
REVISED 10-22-22

Sheet:

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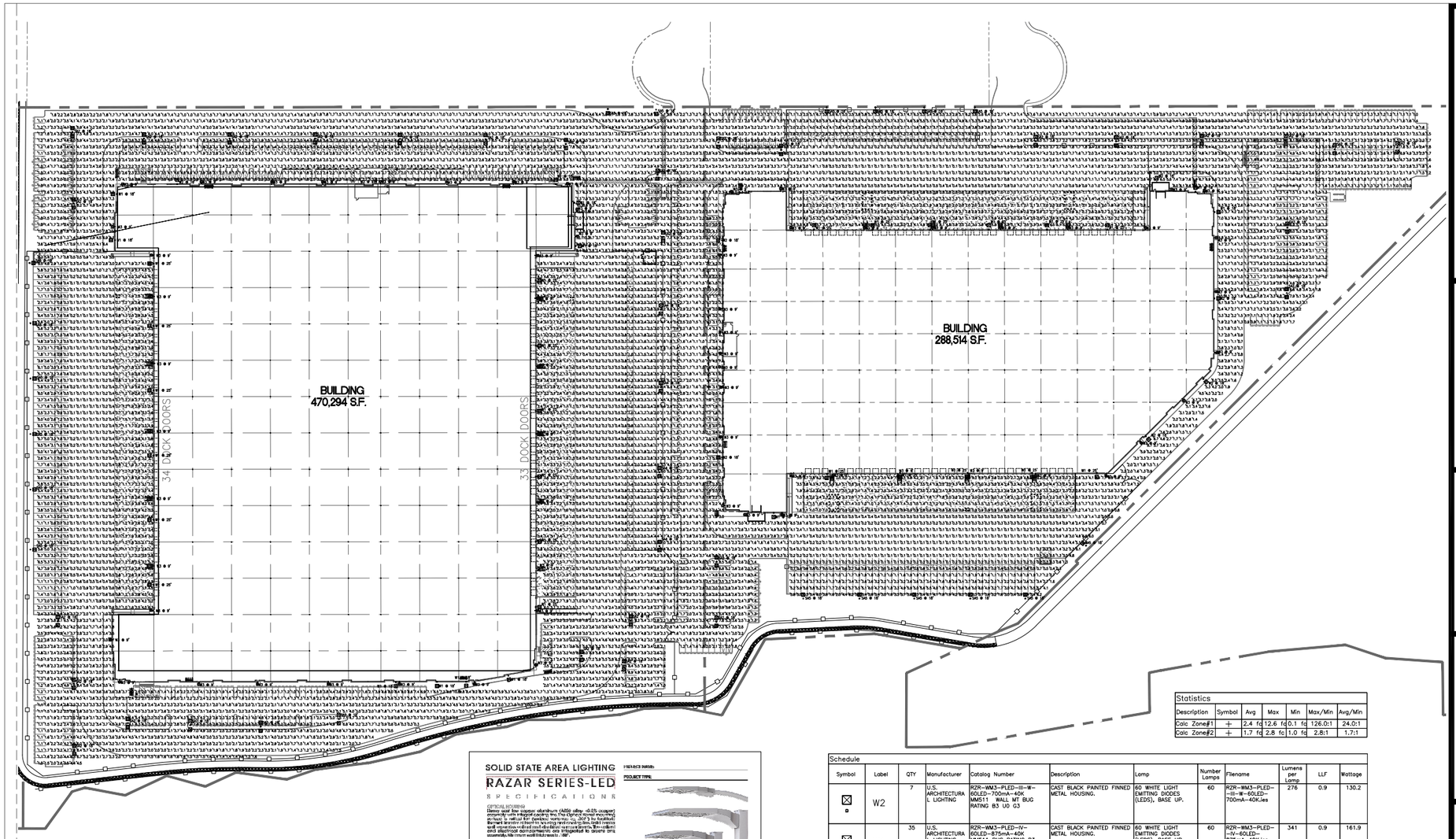
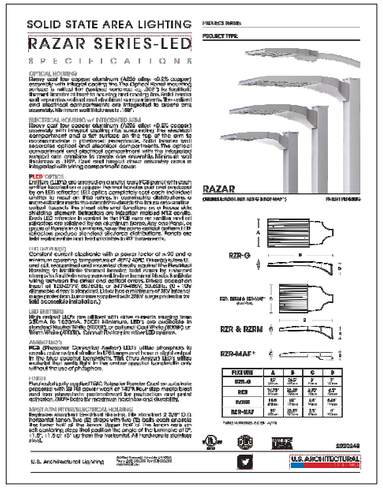


Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone#1	+	2.4 fc	12.6 fc	0.1 fc	126.0:1	24.0:1
Calc Zone#2	+	1.7 fc	2.8 fc	1.0 fc	2.8:1	1.7:1

Schedule										
Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens per Lamp	LLF	Wattage
⊠	W2	7	U.S. ARCHITECTURAL LIGHTING	RZR-WM3-PLED-III-W-60LED-700mA-40K MM511 WALL MT BUG RATING B3 U0 G3	CAST BLACK PAINTED FINNED METAL HOUSING.	60 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	60	RZR-WM3-PLED-III-W-60LED-700mA-40K.ies	276	0.9	130.2
⊠	W1	35	U.S. ARCHITECTURAL LIGHTING	RZR-WM3-PLED-IV-60LED-875mA-40K MM511 BUG RATING B3 U0 G3 WALL MT	CAST BLACK PAINTED FINNED METAL HOUSING.	60 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	60	RZR-WM3-PLED-IV-60LED-875mA-40K.ies	341	0.9	161.9
⊠	SA5	18	U.S. ARCHITECTURAL LIGHTING	RZR-M-PLED-IV-48LED-1050mA-40K-HS MSF 311 MM511 POLE MT AT 18 FT AFG BUG RATING B1 U0 G3	CAST BLACK PAINTED FINNED METAL HOUSING.	48 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	48	RZRM-PLED-IV-48LED-1050mA-40K-HS MSF-HS.ies	308	0.9	159.6
⊠	W3	65	U.S. ARCHITECTURAL LIGHTING	RZR-WM1-PLED-III-W-20LED-525mA-NW EM1 BUG RATING B1 U0 G2 MM511 WALL MT AT 9 FT AFG	CAST BLACK PAINTED FINNED METAL HOUSING.	20 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	20	RZR-WM1-PLED-III-W-20LED-525mA-NW.ies	218	0.9	32.4
⊠	SA2	32	U.S. ARCHITECTURAL LIGHTING	RZR-M-PLED-VSQ-W-48LED-1050mA-40K MSF 311 MM511 POLE MT AT 18 FT AFG 12.5 FT POLE 3D IN BASE BUG RATING B5 U0 G3	CAST BLACK PAINTED FINNED METAL HOUSING.	48 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	48	RZRM-PLED-VSQ-W-48LED-1050mA-40K.ies	406	0.9	319.2
⊠	SA4	4	U.S. ARCHITECTURAL LIGHTING	RZR-M-PLED-VSQ-W-48LED-1050mA-40K MSF 311 MM511 POLE MT AT 18 FT AFG 11 FT POLE48 IN BASE BUG RATING B5 U0 G3	CAST BLACK PAINTED FINNED METAL HOUSING.	48 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	48	RZRM-PLED-VSQ-W-48LED-1050mA-40K.ies	406	0.9	319.2



PHOTOMETRIC SITE PLAN
SCALE: 1"=60'-0" (A)

RPM
Engineers, Inc.
100 Pringle Ave.
Walnut Creek, CA
Tel: 949-450-1229 ext.208
Fax: 949-450-1454
Contact: Lan Nguyen
e-mail: lann@rpmipe.com

REGISTERED PROFESSIONAL ENGINEER
LAN E. NGUYEN
No. 015596
Exp.12-31-2021
ELECTRICAL
STATE OF CALIFORNIA
10/27/2022

HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Developer
LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:
OAKS BUSINESS PARK
LIVERMORE, CA

Consultants:

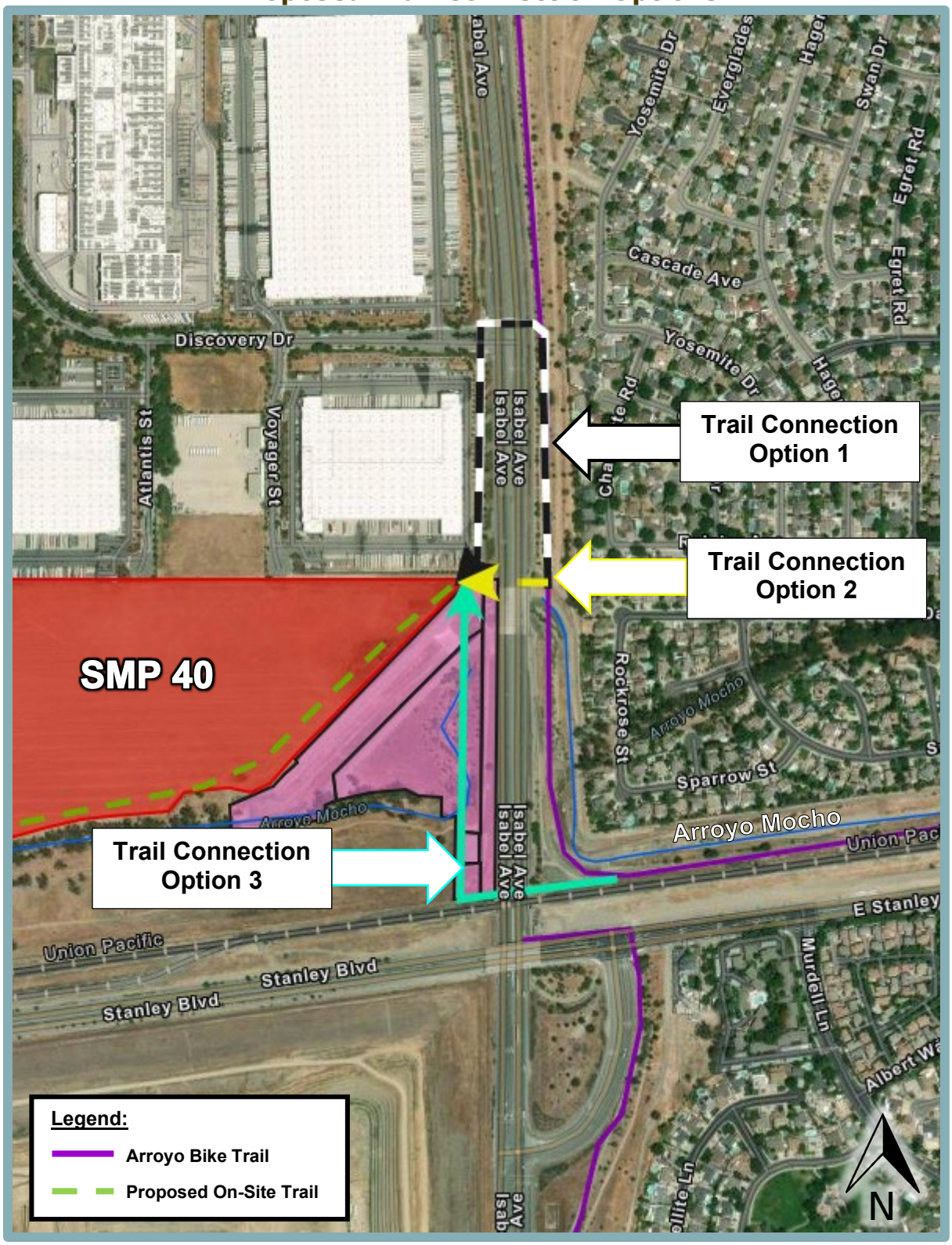
CIVIL	Kier&Wright
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

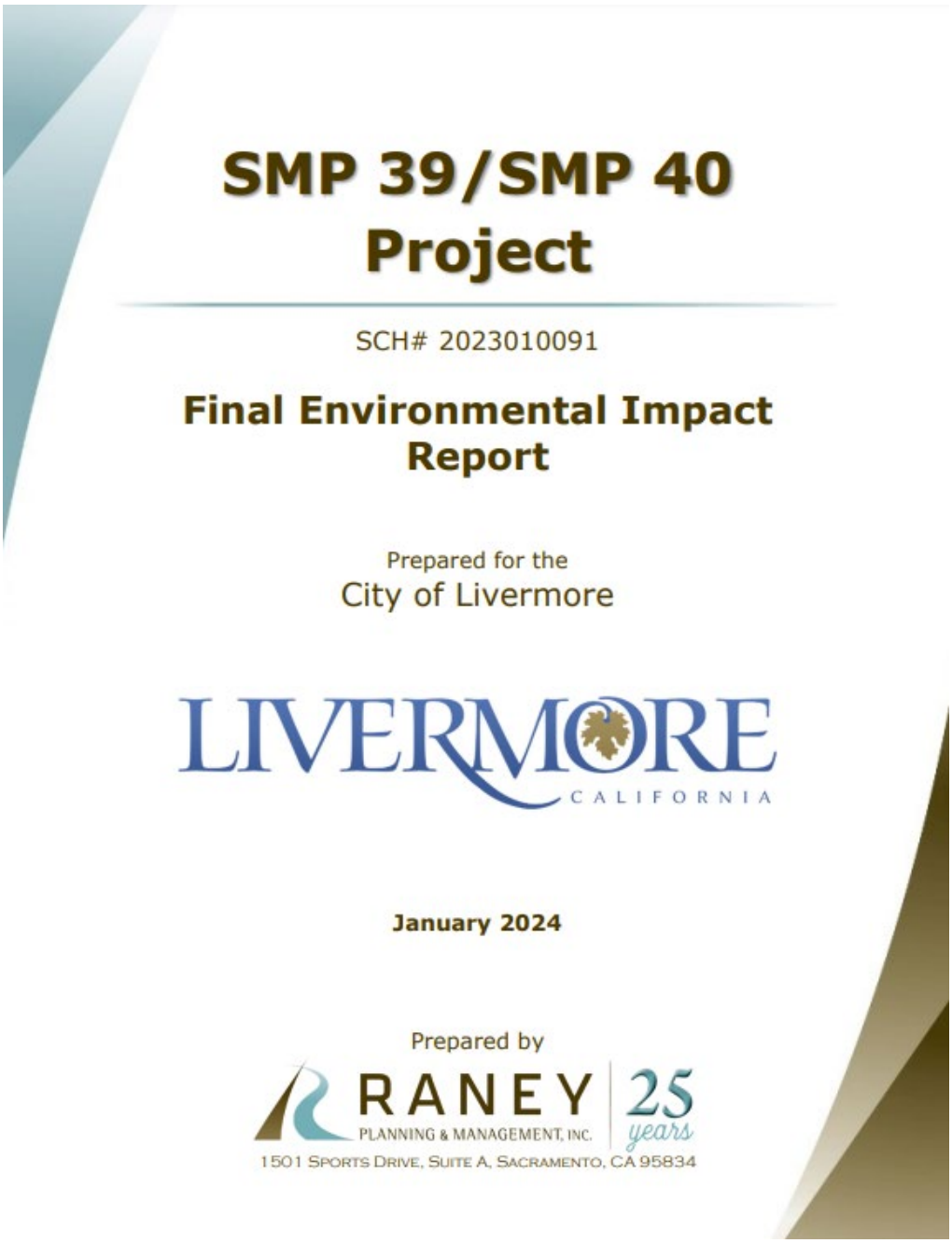
Title:
PHOTOMETRIC SITE PLAN

Project Number:	19177
Drawn by:	TSP
Date:	08/23/2021
Revision:	

Sheet:
E-FC
10/27/2022

Figure 3-12
Proposed Trail Connection Options





The SMP 39/SMP 40 environmental documents are available on the City's website:

https://www.livermoreca.gov/departments/community-development/planning/environmental-documents

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION CERTIFYING THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE SMP 39/SMP 40 PROJECT AND ADOPTING CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS, A STATEMENT OF OVERRIDING CONSIDERATIONS, AND A MITIGATION MONITORING AND REPORTING PROGRAM

The City of Livermore ("City") is considering an Annexation/Prezoning (APZ) 21-003, Pre-Annexation and Development Agreement (DA) 21-001, Pre-Annexation and Development Agreement (DA) 23-002, General Plan Amendment (GPA) 21-001, Zoning Map Amendment (ZMA) 21-002, Planned Development Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008 for the SMP 39/SMP 40 Project ("Project") to develop approximately 1.51 million square feet of industrial development and associated parking, lighting, landscaping, and other improvements.

The City determined that the Project is subject to the California Environmental Quality Act ("CEQA") and that an Environmental Impact Report ("EIR") is required.

On January 6, 2023, the City issued a Notice of Preparation pursuant to CEQA to obtain comments on the proposed scope of the EIR for the Project.

On August 30, 2023, the Draft EIR was distributed to the Planning Commission, the City Council, responsible agencies, trustee agencies and federal agencies involved in funding or approval of a project, State Clearinghouse, state, regional and local agencies and special districts, and interested groups and individuals for a 45-day public comment period.

On October 3, 2023, the Planning Commission held a duly noticed public hearing to consider the adequacy of the Draft EIR at which time oral and written comments were presented to the Planning Commission. Members of the public and other interested parties were invited by formal public notice to testify on the adequacy of the Draft EIR at the public hearing.

On October 13, 2023, at 5:00 p.m. the public comment period on the Draft EIR was closed. The City received six written comment letters.

On January 16, 2024, the Final EIR was distributed consisting of copies of all written and oral comments, a list of commenters, and all responses to oral and written comments and minor corrections to the Draft EIR. A copy of the written responses to comments received after the release of the Final EIR are attached hereto as Exhibit E.

On March 5, 2024, the Planning Commission held a public hearing to consider its recommendation to the City Council, and upon review and consideration of the information in the Final EIR and administrative record, adopted Resolution No. 02-24, attached hereto as Exhibit A, recommending that the City Council certify the Final EIR.

On March 25, 2024, the City Council held a duly noticed public hearing to consider the Project, Planning Commission and staff recommendations, all public comments and testimony, and findings.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore that prior to taking action on the Project, and at a properly noticed public hearing, the City Council reviewed written and oral staff reports, conducted a public hearing on the Project and took testimony, and received into the record all pertinent documents related to the Project (collectively, the "Record Evidence"). The City Council's determination is based on the Record Evidence, which is incorporated into this Resolution by reference.

BE IT FURTHER RESOLVED that the City Council of the City of Livermore, has considered the findings made in Planning Commission Resolution No. 02-24, attached hereto as Exhibit A, and hereby adopts the same findings by this reference and incorporates them as their own findings as part of this resolution. Based upon the City Council's own independent review of the Record Evidence and considerations, the City Council hereby finds that the Final EIR has been completed in compliance with the intent and requirements of the California Environmental Quality Act ("CEQA"), CEQA Guidelines, and the City's local CEQA requirements and has considered the information contained in the Final EIR and the record prior to taking any action on the Project, other related Project actions, or any of the alternatives. The City Council hereby certifies the Final EIR, attached hereto as Exhibit B, as amended by the Responses to Comments Received After the Close of the Final Environmental Impact Report Public Review Period and Erratum, attached hereto as Exhibit E, and approves and adopts the Findings, Facts in Support of Findings and Statement of Overriding Considerations Regarding the Environmental Impact Report, attached hereto as Exhibit C.

BE IT FURTHER RESOLVED that the City Council of the City of Livermore hereby adopts the Mitigation Monitoring and Reporting Program, attached hereto as Exhibit D, which is incorporated into the conditions of approval for the project.

BE IT FURTHER RESOLVED that the City Council of the City of Livermore directs the Planning Manager to file a Notice of Determination with the Alameda County Clerk, if the project is approved.

The documents that constitute the record of proceedings upon which this decision is based can be found in the City Clerk's Office, 1052 S. Livermore Avenue, in Livermore, California. This resolution shall be effective upon adoption by the City Council.

On motion of Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted on March 25, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

ATTEST:

_____
Deborah L. Elam
Acting City Clerk

APPROVED AS TO FORM:

/s/ Kimberly D. Cilley
Kimberly D. Cilley
Senior Assistant City Attorney

Exhibit A – Planning Commission Resolution No. 02-24
Exhibit B – Final EIR for the SMP 39/SMP 40 Project
Exhibit C – Findings, Facts in Support of Findings and Statement of Overriding Considerations
Exhibit D – Mitigation, Monitoring and Reporting Program
Exhibit E – Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum

IN THE PLANNING COMMISSION OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION RECOMMENDING THAT THE CITY COUNCIL CERTIFY THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE SMP 39/SMP 40 PROJECT AND ADOPT CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS, A STATEMENT OF OVERRIDING CONSIDERATIONS, AND A MITIGATION MONITORING AND REPORTING PROGRAM

The City of Livermore is considering an Annexation/Prezoning (APZ) 21-003, Pre-Annexation and Development Agreement (DA) 21-001, Pre-Annexation and Development Agreement (DA) 23-002, General Plan Amendment (GPA) 21-001, Zoning Map Amendment (ZMA) 21-002, Planned Development Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008 for the SMP 39/SMP 40 Project ("Project") to develop approximately 1.51 million square feet of industrial development and associated parking, lighting, landscaping, and other improvements.

The City determined that the Project, is subject to the California Environmental Quality Act ("CEQA") and that an Environmental Impact Report ("EIR") is required.

On January 6, 2023, the City issued a Notice of Preparation pursuant to CEQA to obtain comments on the proposed scope of the EIR for the Project.

On August 30, 2023, the Draft EIR was distributed to the Planning Commission, the City Council, responsible agencies, and federal agencies responsible for approving the project, State Clearinghouse, state, regional and local agencies and special districts, and interested groups and individuals for a 45-day public comment period.

On October 3, 2023, the Planning Commission held a duly noticed public hearing to consider the adequacy of the Draft EIR at which time oral and written comments were presented to the Planning Commission. Members of the public and other interested parties were invited by formal public notice to testify on the adequacy of the Draft EIR at the public hearing.

On October 13, 2023, at 5:00 p.m. the public comment period on the Draft EIR was closed. The City received six written comment letters from various agencies and organizations and three verbal comments from members of the public.

On January 16, 2024, the Final EIR was distributed consisting of copies of all written and oral comments, a list of commenters, and all responses to oral and written comments and minor corrections to the Draft EIR. A copy of the written responses to comments received after the release of the Final EIR are attached hereto as Exhibit D.

On March 5, 2024, the Planning Commission held a duly noticed public meeting to consider the Project and staff recommendations, all public comments and testimony, and

findings.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Livermore that prior to taking action on the Project, and at a properly noticed public meeting, the Planning Commission reviewed written and oral staff reports, conducted a public hearing on the Project and took testimony, and received into the record all pertinent documents related to the Project (collectively, the "Record Evidence"). The Planning Commission's determination is based on the Record Evidence, which is incorporated into this Resolution by reference.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore, based upon its own independent review of the Record Evidence and considerations, finds that the Final EIR has been completed in compliance with the intent and requirements of the CEQA Guidelines, and the City's local CEQA requirements and has considered the information contained in the Final EIR and the record prior to taking any action on the Project, other related Project actions, or any of the alternatives. The Planning Commission hereby recommends the City Council certify the Final EIR, attached hereto as Exhibit A, and approve and adopt the Findings, Facts in Support of Findings and Statement of Overriding Considerations Regarding the Environmental Impact Report, attached hereto as Exhibit B.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore hereby recommends the City Council adopt the Mitigation Monitoring and Reporting Program, attached hereto as Exhibit C, which is incorporated into the conditions of approval for the project.

BE IT FURTHER RESOLVED, the Planning Commission of the City of Livermore recommends that the City Council direct the Planning Manager to file a Notice of Determination with the Alameda County Clerk, if the project is approved.

The documents that constitute the record of proceedings upon which this decision is based can be found in the Community Development Department, 1052 S. Livermore Avenue, in Livermore, California.

On the motion by Commissioner Leary, seconded by Commissioner Fintschenko, the foregoing Resolution was passed and adopted at the Planning Commission meeting of March 5, 2024, by the following vote:

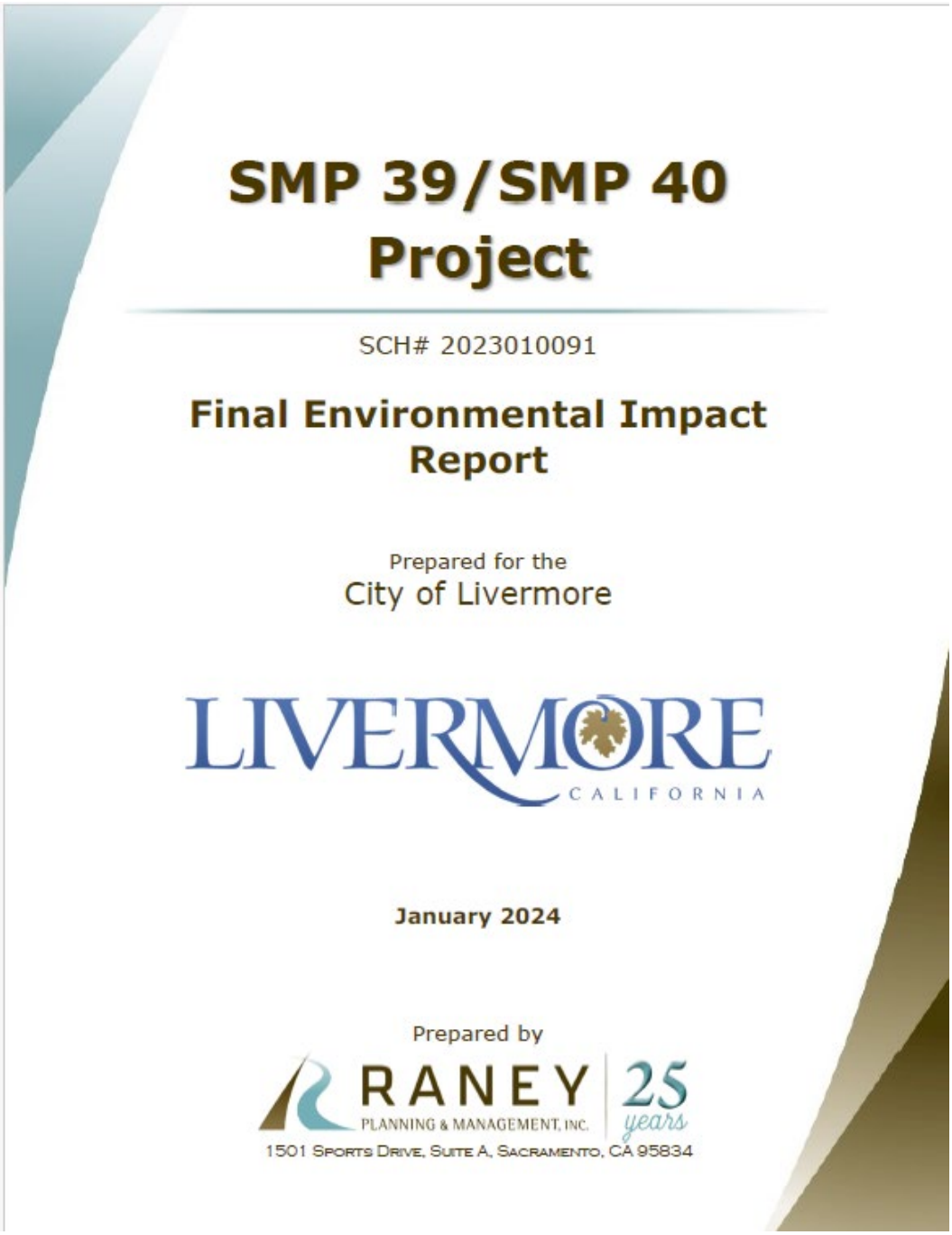
AYES: ANDERSON, DUNBAR, FINTSCHENKO, KRONZAK, LEARY.
NOES: NONE.
ABSENT: NONE.

Jacob Anderson, Chairperson

Steve Riley

by Steve Riley, Acting Planning Manager
Secretary to the Planning Commission

Exhibit A – Final Environmental Impact Report for the SMP 39/SMP 40 Project
Exhibit B – Findings, Facts in Support of Findings and Statement of Overriding Considerations Regarding the Environmental Impact Report for the SMP 39/SMP 40 Project
Exhibit C – Mitigation Monitoring and Reporting Program for the SMP 39/SMP 40 Project
Exhibit D – Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum



The SMP 39/SMP 40 Final Environmental Impact Report is available on the City's website:

https://www.livermoreca.gov/departments/community-development/planning/environmental-documents

FINDINGS, FACTS IN SUPPORT OF FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS REGARDING THE ENVIRONMENTAL IMPACT REPORT FOR THE SMP 39/SMP 40 PROJECT (SCH NO. 2023010091)

The following Findings, the mitigation measures specified herein, and the Mitigation Monitoring and Reporting Program attached hereto are hereby adopted by the Livermore City Council in accordance with California Environmental Quality Act ("CEQA"), Public Resources Code Section 21081, 21081.5 and 21081.6, and the CEQA Guidelines, Title 14, California Code of Regulations, Sections 15091 through 15093 for the SMP 39/SMP 40 Project ("Project").

A. ENVIRONMENTAL REVIEW PROCESS

On January 6, 2023, the City issued a Notice of Preparation pursuant to CEQA to obtain comments on the proposed scope of the Environmental Impact Report (EIR) for the Project. The City released the Draft EIR on August 30, 2023, for a 45-day public comment period. The City made available the Draft EIR to the Planning Commission, the City Council, State Clearinghouse, state, regional and local agencies and special districts, and interested groups and individuals. On October 3, 2023, the Planning Commission conducted a public hearing on the Draft EIR. Members of the public and other interested parties were invited by formal public notice to provide comments on the scope and content of the Draft EIR at the public hearing. On October 13, 2023, at 5:00 PM, the public comment period on the Draft EIR closed. Nine written and oral comments were received during the public comment period.

The City released the Final EIR for public review on January 16, 2024. Subsequent to the Final EIR, a number of additional comment letters were received from the public regarding the Project. While CEQA does not require that written responses be provided for letters received after the close of the Draft EIR public review period, the comments were acknowledged by the City, and the City chose to prepare written responses to the comments and associated errata for the decision-makers consideration in making an informed decision. The Final EIR consists of copies of all written or oral comments received on the Draft EIR, a list of commenters, all responses to written and oral comments, and proposed revisions to the Draft EIR. The Final EIR, Draft EIR, Mitigation Monitoring and Reporting Program (MMRP), and the written responses to comments and associated errata prepared subsequent to the Final EIR that were included with the Planning Commission and City Council staff reports together comprise the EIR for the Project. The analysis and conclusions contained in the EIR reflect the independent judgment of the City.

B. PROJECT DESCRIPTION

Chapter 3 of the Draft EIR includes a detailed description of the Project. The Project, as described in the Draft EIR, has been revised as described in the Final EIR. The revisions make only minor technical changes, clarifications or additions to the Draft EIR.

The approximately 105.34-acre project site consists of six separate parcels identified by Assessor's Parcel Numbers (APNs) 904-3-1-4; 904-10-2-2, -3, -5, -7, and -8 located in

unincorporated Alameda County. The Project site is located adjacent to the existing Oaks Business Park, which consists of eight light industrial warehouse buildings, in the northwestern corner of the City of Livermore. The parcels are currently undeveloped, with the exception of a few structures located on the Additional Annexation Only Parcels. The Project site is generally located west of Isabel Avenue/State Route (SR) 84, north of Stanley Boulevard, south of West Jack London Boulevard, and east of El Charro Road. APN 904-3-1-4 is also known as SMP 39; and 904-10-2-2 is also known as SMP 40. The aforementioned SMP numbers are due to the Surface Mining Permit (SMP) numbers applicable to each site. The Surface Mining Permits for each of the sites were approved by Alameda County in 2004 to allow for the extraction of sand and gravel (i.e., aggregate) within the sites; however, aggregate mining has not occurred within any of the sites. Four additional parcels (APNs 904-10-2-3, -5, -7, and -8) located east of SMP 40 are included in the overall Project area.

SMP 39, SMP 40, and the Additional Annexation Only Parcels are within the City of Livermore South Livermore Urban Growth Boundary (UGB); however, SMP 39 is also within the City of Pleasanton's Sphere of Influence (SOI). Accordingly, an SOI Amendment for SMP 39 is proposed in order to modify City of Pleasanton SOI, align the SOI and South Livermore UGB boundaries to be consistent with one another, and provide a contiguous division of land between the cities of Livermore and Pleasanton. It should be noted that the likelihood for any future development on the Additional Annexation Only Parcels is low due to physical constraints to development present on the parcels and their small size. Thus, the analysis of the Draft EIR assumed that any development on the Additional Annexation Only Parcels would be limited to cooperating with the Project applicant regarding development of the proposed trail and trail connection.

On the SMP 39 site, the Project would include development of a total of up to six light industrial buildings, consisting of up to approximately 755,500 square feet (sf) total of new building space, and associated internal roadways, parking, landscaping, utilities, and other improvements. On the SMP 40 site, the Project would include development of two industrial buildings containing up to approximately 759,275 sf of new building space with related internal roadways, parking, landscaping, utilities, and other improvements. The Project would include frontage improvements along SMP 39 and right-of-way dedication for the ultimate buildout of West Jack London Boulevard, which would include an at-grade, paved shared-use path along the Project frontage, consistent with the City's Active Transportation Plan (ATP). Similarly, a paved at-grade, on-site trail would be provided along the boundaries of the SMP 40 site, consistent with the City's ATP. The proposed on-site trails would provide connection between SMP 39 to the existing path along the western boundary of the Oaks Business Park, SMP 40, and eventually to the Arroyo Mocho Trail, as the Project would include a new off-site trail connection to the existing Arroyo Mocho Trail, located on the east side of Isabel Avenue/SR 84. Three alternatives for the proposed off-site trail crossing to the existing Arroyo Mocho Trail are being considered and evaluated in the Draft EIR, including an at-grade crossing at Discovery Drive, an undercrossing at the existing Isabel Bridge, and an overcrossing of Isabel Avenue/SR 84 just north of the existing railroad tracks and associated crossing (north of Stanley Boulevard).

A detailed description of the Project's entitlements can be found in Chapter 3 of the Draft EIR. Overall, the Project includes approval of the following entitlements and agreements by the City of Livermore and Responsible Agencies, including Alameda County and the City of Pleasanton:

SMP 39

- Resolution authorizing submittal of an annexation and SOI Amendment application to the Alameda LAFCo;
    - Property tax exchange agreement between Alameda County and the City of Livermore;
- General Plan Amendment to modify the City's land use designation for SMP 39 from Open Space/Sand and Gravel to Low Intensity Industrial (LII);
    - Pre-zone the site as Planned Development-Industrial (PDI-22-001);
    - Zoning Map Amendment;
    - Vesting Tentative Subdivision Map;
    - Development Agreement; and
    - Pre-Annexation Agreement.

SMP 40

- Resolution authorizing submittal of an annexation application to the Alameda LAFCo;
    - Property tax exchange agreement between Alameda County and the City of Livermore;
- General Plan Amendment to modify the City's land use designation for SMP 40 from Open Space/Sand and Gravel to LII;
    - Pre-zone the site as PDI-22-001;
    - Zoning Map Amendment;
    - Vesting Tentative Subdivision Map;
    - Site Plan and Design Review;
    - Development Agreement; and
    - Pre-Annexation Agreement.

Additional Annexation Only Parcels (APNs 904-10-2-3, -5, -7, and -8)

- Resolution authorizing submittal of an annexation application to the Alameda LAFCo;
    - Property tax exchange agreement between Alameda County and the City of Livermore;
- General Plan Amendment to modify the City's land use designation from Open Space/Sand and Gravel to Parks, Trailways and Recreation Areas (OSP); and
    - Pre-zone the sites to Open Space Flood Plain (OS-F).

A number of other agencies, such as Alameda LAFCo, would serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. The Draft EIR provided environmental information, which may be required to grant approvals or coordinate with other agencies, to the agencies as part of Project implementation. These agencies could include, but may not be limited to, the following:

- Alameda LAFCo;
- Alameda County Airport Land Use Commission (ALUC);
- Alameda County;
- City of Pleasanton;
- Pacific Gas and Electric Company (PG&E);
- Federal Aviation Administration (FAA);

- Federal Emergency Management Agency (FEMA);
- Bay Area Air Quality Management District (BAAQMD);
- California State Water Resources Control Board (SWRCB);
- San Francisco Regional Water Quality Control Board (RWQCB);
- Zone 7 Water Agency;
- Caltrans;
- California Department of Fish and Wildlife (CDFW); and
- U.S. Army Corps of Engineers (USACE).

C. SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS AND DISPOSITION OF RELATED MITIGATION MEASURES

The Final EIR identifies the following significant and unavoidable adverse impacts associated with the approval of the Project and identifies related mitigation measures. It is hereby determined that these significant unavoidable adverse impacts are acceptable for the reasons specified in Section J below.

The impacts and related mitigation measures identified below are presented in summary form. For a detailed description of impacts and mitigation measures, see the MMRP in the Final EIR.

1. Agricultural Resources Impact 4.1-2: Implementation of the Project would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Buildout of the Project has the potential to result in impacts to agricultural resources, specifically the conversion of farmland to non-agricultural uses. SMP 39 and SMP 40 have on-site soils that result in the land being considered prime agricultural land by Alameda LAFCo.

According to the Alameda LAFCo's General Proposal Policies, the LAFCo shall discourage City annexations of prime agricultural land, as defined by Government Code Section 56064, if such areas are not needed for urbanization within five years. The City has identified a need for additional industrial uses within the City of Livermore, and vacant land that would be viable for development of industrial uses similar to the Project does not exist within current Livermore city limits. Further, given the existing surrounding land uses, the project site is generally a suitable location for the Project, and a reasonable assumption can be made that other properties within the City may not be as well suited for the Project as the project site. Therefore, urbanization of the project site within the next five years would be needed to allow for the development of additional light industrial uses within the City. It should be noted, however, that annexation is ultimately subject to approval by Alameda LAFCo.

Potential mitigation for impacts analyzed in the Draft EIR related to the conversion of prime agricultural land to non-agricultural uses included purchasing agricultural conservation easements outside the Project area. However, this mitigation would not create new agricultural land; rather, the mitigation would preserve existing agricultural land elsewhere. Feasible mitigation measures do not exist to reduce the above impact to a less-than-significant level. Therefore, the impact would remain significant and unavoidable.

2. Agricultural Resources Impact 4.1-3: Implementation of the proposed Project would result in impacts related to the cumulative loss of agricultural land.

As discussed above, SMP 39 and SMP 40 have on-site soils that are considered prime agricultural land by Alameda LAFCo. Therefore, implementation of the Project would convert prime agricultural land to non-agricultural uses, which would conflict with Alameda LAFCo policies related to prime agricultural land. Accordingly, the Project would prevent further use of the site for agricultural uses, and the Project-specific impact would be considered significant and unavoidable. Feasible mitigation measures do not exist to reduce the impact to a less-than-significant level. Therefore, the impact would remain significant and unavoidable.

D. SIGNIFICANT IMPACTS IDENTIFIED IN THE EIR THAT ARE REDUCED TO A LEVEL OF "LESS THAN SIGNIFICANT" BY THE MITIGATION MEASURES INCORPORATED INTO THE PROJECT

The Final EIR identifies the following significant impacts associated with the Project that are reduced to a level of less than significant by mitigation measures identified in the Draft EIR. It is hereby determined that the following environmental impacts will be mitigated to a less-than-significant level or avoided by incorporation of the mitigation measures into the Project (for a detailed description of impacts and mitigation measures, see the appropriate text in the EIR):

1. Air Quality Impact 4.2-1: Implementation of the proposed Project would not conflict with or obstruct implementation of the applicable air quality plan during Project construction, with incorporation of the following mitigation measures: MM 4.2-1(a) and MM 4.2-1(b).

2. Air Quality Impact 4.2-2: Implementation of the proposed Project would not conflict with or obstruct implementation of the applicable air quality plan during Project operation, with incorporation of MM 4.2-2.

3. Biological Resources Impact 4.3-2: Implementation of the proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on special-status wildlife species, with incorporation of the following mitigation measures: MM 4.3-2(a), MM 4.3-2(b), MM 4.3-2(c), and MM 4.3-2(d).

4. Biological Resources Impact 4.3-3: Implementation of the proposed Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or the U.S. Fish and Wildlife Service (USFWS), or State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means, with incorporation of the following mitigation measures: MM 4.3-3(a), MM 4.3-3(b), MM 4.3-3(c), MM 4.3-3(d), and MM 4.3-3(e).

5. Cultural and Tribal Cultural Resources Impact 4.4-2: Implementation of the proposed Project would not cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5, with implementation of MM 4.4-2.

6. Cultural and Tribal Cultural Resources Impact 4.4-3: Implementation of the proposed Project would not disturb any human remains, including those interred outside of dedicated cemeteries, with incorporation of MM 4.4-3.

7. Cultural and Tribal Cultural Resources Impact 4.4-4: Implementation of the proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074, with incorporation of MM 4.4-4.

8. Hydrology and Water Quality Impact 4.5-1: Implementation of the proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality during construction, with incorporation of MM 4.5-1.

9. Hydrology and Water Quality Impact 4.5-2: Implementation of the proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality during operations, with incorporation of the following mitigation measures: MM 4.5-2(a) and MM 4.5-2(b).

10. Hydrology and Water Quality Impact 4.5-4: Implementation of the proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or result in substantial erosion or siltation on- or off-site, with incorporation of MM 4.5-4.

11. Hydrology and Water Quality Impact 4.5-5: Implementation of the proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows, or in flood hazard, tsunami, or seiche zone, risk release of pollutants due to Project inundation, with incorporation of MM 4.5-5.

12. Noise Impact 4.6-1: Implementation of the proposed Project would not result in the generation of a substantial temporary increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, with incorporation of MM 4.6-1(a) and MM 4.6-1(b).

13. Public Services, Utilities, and Service Systems Impact 4.7-8: Implementation of the proposed Project would not result in an increase in demand for utilities and service systems associated with the proposed Project, in combination with future buildout of the Livermore General Plan, with incorporation of the following mitigation measures: MM 4.7-8(a) and MM 4.7-8(b).

14. Transportation Impact 4.8-1: Implementation of the proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities, with incorporation of MM 4.8-1.

15. Transportation Impact 4.8-3: Implementation of the proposed Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), with incorporation of MM 4.8-3.

E. LESS THAN SIGNIFICANT IMPACTS IDENTIFIED IN THE EIR

The Draft EIR identified the following less-than-significant impacts (for a detailed description of the less-than-significant impacts, see the appropriate text in the Draft EIR):

1. Agricultural Resources Impact 4.1-1: Implementation of the proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.

2. Air Quality Impact 4.2-3: Implementation of the proposed Project would not expose sensitive receptors to substantial pollutant concentrations.

3. Air Quality Impact 4.2-4: Implementation of the proposed Project would not result in other emissions (such as those leading to odors) affecting a substantial number of people.

4. Air Quality Impact 4.2-5: Implementation of the proposed Project would not result in the inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency.

5. Air Quality Impact 4.2-6: Implementation of the proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

6. Air Quality Impact 4.2-7: Implementation of the proposed Project would not generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

7. Air Quality Impact 4.2-8: Implementation of the proposed Project would not result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency.

8. Biological Resources Impact 4.3-1: Implementation of the proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on special-status plant species.

9. Biological Resources Impact 4.3-4: Implementation of the proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

10. Biological Resources Impact 4.3-5: Implementation of the proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

11. Biological Resources Impact 4.3-6: Implementation of the proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan.

12. Biological Resources Impact 4.3-7: Implementation of the proposed Project would not cause cumulative loss of habitat for special-status species.

13. Cultural and Tribal Cultural Resources Impact 4.4-1: Implementation of the proposed Project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5.

14. Cultural and Tribal Cultural Resources Impact 4.4-5: Implementation of the proposed Project would not cause a cumulative loss of cultural and tribal cultural resources.

15. Hydrology and Water Quality Impact 4.5-3: Implementation of the proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

16. Hydrology and Water Quality Impact 4.5-6: Implementation of the proposed Project would not result in cumulative impacts related to the violation of water quality standards or waste discharge requirements, and impacts resulting from the alteration of existing drainage patterns.

17. Noise Impact 4.6-2: Implementation of the proposed Project would not result in the generation of a substantial permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

18. Noise Impact 4.6-3: Implementation of the proposed Project would not result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

19. Noise Impact 4.6-4: Implementation of the proposed Project would not, for a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose persons residing or working in the project area to excessive noise levels.

20. Noise Impact 4.6-5: Implementation of the proposed Project would not result in the generation of a substantial permanent increase in ambient noise levels associated with development of the proposed Project in combination with buildout of the City of Livermore General Plan.

21. Public Services, Utilities, and Service Systems Impact 4.7-1: Implementation of the proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain

acceptable service ratios, response times, or other performance objectives for fire protection services.

22. Public Services, Utilities, and Service Systems Impact 4.7-2: Implementation of the proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services.

23. Public Services, Utilities, and Service Systems Impact 4.7-3: Implementation of the proposed Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

24. Public Services, Utilities, and Service Systems Impact 4.7-4: Implementation of the proposed Project would continue to have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.

25. Public Services, Utilities, and Service Systems Impact 4.7-5: Implementation of the proposed Project would not result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.

26. Public Services, Utilities, and Service Systems Impact 4.7-6: Implementation of the proposed Project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or conflict with federal, State, and local management and reduction statutes and regulations related to solid waste.

27. Public Services, Utilities, and Service Systems Impact 4.7-7: Implementation of the proposed Project would not result in cumulative impacts to public services.

28. Transportation Impact 4.8-2: Implementation of the proposed Project would not conflict with a program, plan, ordinance or policy addressing the circulation system during operations.

29. Transportation Impact 4.8-4: Implementation of the proposed Project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), or result in inadequate emergency access.

F. SIGNIFICANT IMPACTS IDENTIFIED IN THE INITIAL STUDY THAT ARE REDUCED TO A LEVEL OF "LESS THAN SIGNIFICANT" BY THE MITIGATION MEASURES INCORPORATED INTO THE PROJECT

The mitigation measures contained in the Initial Study are designed to avoid or mitigate significant environmental impacts whenever possible. Implementation of the mitigation measures contained in the Initial Study will result the following less-than-significant impacts (for a detailed description of the less than significant impacts, see the appropriate text in the Initial Study):

1. Aesthetics Impacts I-a and I-b: The proposed Project would not have a substantial adverse effect on a scenic vista and would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway, with incorporation of MM I-1.

2. Geology and Soils Impacts VII-a-iii and -iv, VII-c, and VII-d: The proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: seismic-related ground failure, including liquefaction, or landslides; be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse; or be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property, with incorporation of MMs VII-1 and VII-2.

3. Geology and Soils Impact VII-f: The proposed Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, with incorporation of MM VII-3.

4. Hazards and Hazardous Materials Impact IX-b: The proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, with incorporation of MM IX-1 and IX-2.

G. LESS THAN SIGNIFICANT IMPACTS IDENTIFIED IN THE INITIAL STUDY

The Initial Study identified the following impacts at a level of less than significant or no impact (for a detailed description of the impacts, see the appropriate text in the Initial Study):

1. Aesthetics Impacts I-c and I-d.

2. Agriculture and Forest Resources Impacts II-a, II-c, and II-d.

3. Geology and Soils Impacts VII-a-i and -ii, as well as VII-e.

4. Hazards and Hazardous Materials Impacts IX-a, IX-c, IX-d, IX-e, IX-f, and IX-g.

5. Land Use and Planning Impact XI-a.

6. Mineral Resources Impacts XII-a and XII-b.

7. Population and Housing Impacts XIV-a and XIV-b.

8. Public Services Impacts XV-c, XV-d, and XV-e.

9. Recreation Impacts XVI-a and XVI-b.

10. Wildfire Impacts XX-a, XX-b, XX-c, and XX-d.

H. MITIGATION MONITORING AND REPORTING PROGRAM

When making findings, the lead agency must adopt a reporting or monitoring program for the mitigation measures it has adopted or made a condition of Project approval in order to mitigate or avoid significant effects on the environment. The City hereby adopts the MMRP for the Project, included as Exhibit A to these findings. The mitigation measures identified in the EIR to reduce significant impacts and adopted and incorporated into the Project will be monitored pursuant to the MMRP.

I. ALTERNATIVES

The Draft EIR evaluated three alternatives to the proposed Project. The City Council has reviewed the significant unavoidable impacts associated with each alternative as compared with the proposed Project, and has also considered each alternative's feasibility, considering a range of economic, environmental, social, and legal factors. Overall, the City Council concludes that each of the three alternatives to the proposed Project is infeasible and less desirable than the proposed Project. The City Council's analysis and conclusions are described below.

1. No Project (No Build) Alternative: The No Project (No Build) Alternative does not involve changes to the current conditions of the Project site would remain, and the site would not be developed. The significant and unavoidable impact associated with agricultural resources would not occur as part of the Alternative. Because the alternative fails to meet multiple Project objectives and failure to meet even a single objective would be sufficient for rejection of the alternative, the alternative is considered infeasible and undesirable.

2. No Project (Maximum Allowable Operations) Alternative: The No Project (Maximum Allowable Operations) Alternative assumes SMP 39 and SMP 40 would be mined as allowed under the current surface mining permits previously approved for the sites by Alameda County, though not on the Additional Annexation Only Parcels. The significant and unavoidable impact associated with agricultural resources would not occur as part of the Alternative. The Alternative would not meet any of the objectives for the Project, as the sites would not be annexed into the City, industrial uses would not be developed on the sites, and off-site improvements, such as the widening of West Jack London Boulevard and the construction of an off-site trail connection, would not occur.

3. Reduced Intensity Alternative: The Reduced Intensity Alternative would involve development of the Project at a reduced scale. The overall building square footage would be reduced from a total of 1,514,775 sf to a total of approximately 1,226,025 sf. The eastern building on SMP 40 would not be developed, so the disturbance area would be reduced by 16.93 acres. All other aspects of the Project, including building heights, vehicle access,

required entitlements, and the off-site improvements, would be similar under the Alternative.

While the eastern building on SMP 40 would not be developed under the Reduced Intensity Alternative, the Alternative would generally meet all the objectives of the Project. For instance, the project objectives refer to developing industrial uses on-site, to the annexation of the sites into the City, and to the development of off-site improvements that would occur under both the Project and the Alternative, including dedicating, widening, and improving West Jack London Boulevard and the construction of off-site trail improvements.

However, under the Reduced Intensity Alternative, the significant and unavoidable impact related to agricultural resources, which was identified for the Project, would still occur. As such, the number of significant and unavoidable impacts under the Reduced Intensity Alternative would be the same as the Project. Therefore, the alternative is considered undesirable and is rejected.

J. STATEMENT OF OVERRIDING CONSIDERATIONS

As set forth above, there is a significant adverse environmental impact to agricultural resources, which was identified in the Final EIR, but is not mitigated to a less-than-significant level. CEQA requires the decision-makers to balance the benefits of the Project against its unavoidable environmental risks in determining to approve the Project. Entirely avoiding many of the significant unavoidable impacts would require undermining key Project objectives (see Section 3.4 of the Draft EIR for the list of Project objectives). Therefore, the City of Livermore finds that the benefits of the Project described below outweigh the unavoidable adverse environmental impact as identified above, and that the adverse environmental impact of the Project is, therefore, considered acceptable. These social, economic, and other benefits constitute overriding considerations justifying Project approval:

1. Approval of the Project advances key Project objectives to revitalize underutilized lands that are appropriate for infill development in which workers can enjoy an environment comprised of modern professional and administrative facilities, research institutions, manufacturing operations, warehouse and distribution facilities, experimental and testing laboratory and related uses compatible with surrounding land uses in the area, the City's General Plan, and the Alameda County Airport Land Use Compatibility Plan (Objectives 2 and 5).

2. Approval of the Project supports the key Project objective to promote industrial development consistent with the goals, policies, and objectives set forth in both the existing City of Livermore General Plan and General Plan update, including facilities with high-quality architectural design, landscaping, and signage that are consistent with the City's design standards and guidelines. Such facilities would provide jobs with competitive salaries, reduce vehicle miles traveled, and provide necessary off-site and on-site improvements to the area roadway system, public works, power, and telecommunications infrastructure consistent with planned infrastructure systems (Objectives 1 and 3).

3. Approval of the Project advances key Citywide goals (Objectives 4, 6, and 8). The proposed project would create logical and future City boundaries in cooperation with the City of Pleasanton and Alameda County that align with the City of Livermore's General Plan and

Urban Growth Boundary (UBG). In addition, as envisioned by the City, the Project would dedicate, widen, and improve West Jack London Boulevard and construct on- and off-site trail improvements and connections to the existing trail network.

4. Approval of the Project would generate long-term sustainable property tax and sales tax revenue for the City of Livermore by way of the annexation of SMP 39 and SMP 40 (Objective 7). The proposed project would also generate funding for local school services through payment of the City's School Impact Mitigation Development Fees.

K. RECIRCULATION NOT REQUIRED

New or substantial changes to the Draft EIR were not proposed as a result of the public comment process. The Final EIR and the responses to comments memoranda and errata prepared as part of the Planning Commission and City Council staff reports responds to comments and makes only minor technical changes, clarifications, or additions to the Draft EIR. The minor revisions to the Draft EIR do not identify any new significant impacts or substantial increase in the severity of any environmental impacts. The revisions are for clarification purposes only and do not change the conclusions of the Draft EIR. Therefore, recirculation of the Draft EIR is not required.

L. RECORD OF PROCEEDINGS

Various documents and other materials constitute the record of proceedings upon which the City Council base their findings and decisions contained herein. Documents related to this Project are located in the Livermore Community Development Department, Planning Division, 1052 South Livermore Avenue, Livermore, CA.

M. SUMMARY

1. Based on the foregoing Findings and the information contained in the record, the City has made one or more other following findings with respect to each of the significant effects of the Project:

    - Changes or alternations have been required in, or incorporated into, the Project, which mitigate or avoid the significant effects on the environment.

    - Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that agency.

    - Specific economic, legal, social, technological, economic or other considerations made infeasible the mitigation measures or alternatives identified in the Final EIR.

2. Based on the foregoing Findings and the information contained in the record, it is determined that:

- All significant effects on the environmental due to the approval of the SMP 39/SMP 40 Project have been eliminated or substantially lessened where feasible.
- Any remaining significant effects on the environment found to be unavoidable are acceptable due to the factors described in the Statement of Overriding Considerations in Section J, above.

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
4.2 Air Quality and Greenhouse Gas Emissions					
4.2-1	Conflict with or obstruct implementation of the applicable air quality plan during project construction.	*4.2-1(a)* *Prior to approval of any Improvement Plans, the project applicant shall provide proof of compliance with the following to the satisfaction of the City of Livermore Community Development Department:* *The project applicant shall show on the plans via notation that the contractor shall ensure that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction of all project components (i.e., construction of SMP 39, SMP 40, and the chosen off-site trail connection option), including owned, leased, and subcontractor vehicles, shall be a combination of engine Tier 3 or Tier 4 off-road construction equipment, or hybrid, electric, or alternatively fueled equipment (or any combination of the above), sufficient to achieve a fleet-wide average reduction in construction-related ROG and NOX emissions to below the applicable BAAQMD thresholds of significance (54 lbs/day). For instance, the emissions presented in Table 4.2-8 were achieved by requiring all equipment used during construction to be engine Tier 4 final.*	City of Livermore Community Development Department	Prior to approval of any Improvement Plans	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		In addition, all off-road equipment operating at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to five minutes or less in accordance with the In-Use Off-Road Diesel Vehicle Regulation as required by CARB. Clear signage regarding idling restrictions shall be placed at the entrances to the construction site. *Portable equipment over 50 horsepower must have either a valid BAAQMD Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB.* *Conformance with the foregoing requirements shall be included as notes and be confirmed through review and approval of grading plans by the City of Livermore Community Development Department.*			
		4.2-1(b) *The project applicant shall show on Improvement Plans via notation that the project contractor shall restrict the building construction and architectural coating phases of construction for SMP 39 from occurring simultaneously with the building construction and architectural coating phases of construction for SMP 40.*	City of Livermore Community Development Department	Prior to approval of any Improvement Plans	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		Conformance with this requirement shall be confirmed through review and approval of plans by the City of Livermore Community Development Department.			
4.2-2	Conflict with or obstruct implementation of the applicable air quality plan during project operation.	*4.2-2 Prior to approval of any Improvement Plans, the project applicant shall provide proof of compliance with the following to the satisfaction of the City of Livermore Community Development Department:* • *The project applicant shall show on the Improvement Plans via notation that all off-road equipment (i.e., forklifts) to be used during operations of the proposed project shall be a combination of propane and electric, sufficient to achieve a fleet-wide average reduction in operational-related NOX emissions to below the applicable BAAQMD threshold of significance (54 lbs/day). For instance, the emissions presented in Table 4.2-10 were achieved by requiring that 27 percent of the forklifts used during operations on both SMP 39 and SMP 40 are electric.*	City of Livermore Community Development Department	Prior to approval of any Improvement Plans	
4.3 Biological Resources					
4.3-2	Have a substantial adverse effect, either directly or through habitat modifications, on special-status wildlife species.	*Western Burrowing Owl* *4.3-2(a) If project construction begins during the western burrowing owl nesting season (February 1 to August 31), a qualified biologist shall conduct targeted burrowing owl nest surveys within 14 days prior to*	City of Livermore Community Development Department	Within 14 days prior to construction activities if project construction begins during the western	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		construction activities using seven- to 20-foot transects. A separate preconstruction survey shall be conducted for SMP 39 and SMP 40 (including the off-site trail connection area) if the components of the project are not constructed concurrently. The survey shall include the project site and all accessible areas within 500 feet of the project impact zone, and shall follow CDFW guidelines outlined in the 2012 Staff Report on Burrowing Owl Mitigation. The results of the survey shall be submitted to the City of Livermore Community Development Department within 30 days of the completed survey. The survey report shall be valid for one construction season. *If western burrowing owls are not detected on-site during the survey, further mitigation shall not be required. If any western burrowing owls are detected on-site, pursuant to the CDFW's 2012 Staff Report on Burrowing Owl Mitigation, the following restricted activity dates and setback distances shall be implemented:* • *From April 1 through October 15, low disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests.* • *From April 1 through August 15, medium disturbance activities shall have a 500-meter buffer from*		burrowing owl nesting season (February 15 to August 31)	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		occupied nests. Medium disturbance activities can have a reduced buffer of 200 meters starting August 16 through October 15. • *From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests.* • *Earth-moving activities or other disturbance shall not occur within the aforementioned buffer zones of occupied burrows unless monitoring of the nest site by a qualified biologist determines that the owls are acclimated to the disturbance and would not be disturbed by a smaller buffer. The buffer zones shall be fenced.* • *A qualified biologist shall delineate the extent of burrowing owl habitat on the site.* • *Owls may be passively relocated from the project site between October 1 and February 1. Passive removal shall be conducted by a qualified biologist with demonstrated experience with passive relocation.* • *Credits shall be purchased from a mitigation bank in coordination with CDFW and the City of Livermore to*			

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		offset the project's habitat loss on the burrowing owl. *A report detailing compliance with the provisions set forth herein shall be prepared by the qualified biologist and submitted for review and approval to the City of Livermore Community Development Department.*			
		Western Burrowing Owl (Trail Connection Options 2 and 3) *4.3-2(b) In the event that Trail Connection Option 2 – Undercrossing at Isabel Bridge or Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84 is the selected trail connection option for the proposed project, the requirements of Mitigation Measure 4.3-2(a) shall be implemented for the disturbance area associated with the trail connection option.*	City of Livermore Community Development Department	Within 14 days prior to construction activities if project construction begins during the western burrowing owl nesting season (February 15 to August 31)	
		Tricolored Blackbird *4.3-2(c) Prior to any ground disturbance on SMP 40, a qualified biologist shall conduct a preconstruction survey in all accessible areas identified as supporting potential tricolored blackbird nesting habitat. The survey shall document the current, and to the extent possible, historical presence or absence of nesting colonies of tricolored blackbird. Surveys shall conclude no more than two calendar days prior to construction. If a tricolored blackbird nesting colony is present, a 250-foot buffer shall be applied*	City of Livermore Community Development Department	Prior to any ground disturbance on SMP 40	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		from the outer edge of all hydrophytic vegetation associated with the site and the site plus buffer shall be avoided. The Wildlife Agencies shall be notified immediately of nest locations. All survey results shall be submitted to the City of Livermore Community Development Department prior to the start of construction. If current or recent tricolored blackbird nesting colonies are not identified, further action is not required. *If construction takes place during the breeding season when an active colony is present, a qualified biologist shall monitor construction to ensure that the 250-foot buffer zone is enforced. If monitoring indicates that construction outside of the buffer is affecting a breeding colony, the buffer shall be increased if space allows (e.g., move staging areas farther away). If space does not allow, construction shall cease until the colony abandons the site or until the end of the breeding season, whichever occurs first. The biological monitor shall also conduct training of construction personnel on the avoidance procedures, buffer zones, and protocols in the event that tricolored blackbirds fly into an active construction zone (i.e., outside the buffer zone).* *Nesting Birds and Raptors (Including Loggerhead Shrike)*			

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		4.3-2(d) *If project construction begins during the nesting season (February 1 to August 31), a qualified biologist shall conduct a nesting bird survey within 7 days prior to construction activities. A separate preconstruction survey shall be conducted for SMP 39 and SMP 40 (including the off-site trail connection area) if the components of the project are not constructed concurrently. The nesting bird survey shall include walking transects to search for ground nesting birds, and an examination of all trees on-site and within all accessible areas within 200 feet of the entire project site and off-site improvement areas (i.e., within a zone of influence of nesting birds). If nesting birds are not found within the project site or off-site improvement areas, further mitigation shall not be required.* *If migratory birds are identified nesting on or within the zone of influence, the Wildlife Agencies shall be notified immediately of nest locations. A qualified biologist shall establish a temporary protective nest buffer around the nest(s). The nest buffer shall be staked with orange construction fencing. The buffer must be of sufficient size to protect the nesting site from construction-related disturbance and shall be established by a qualified ornithologist or biologist with extensive experience working with nesting birds near and on construction sites. Typically, adequate nesting buffers are 75*	City of Livermore Community Development Department	Within seven days prior to construction activities, if project construction begins during the nesting season (February 1 to August 31)	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		feet from the nest site or nest tree dripline for small birds and up to 300 feet for sensitive nesting birds that include several raptor species known in the region of the project site but that are not expected to occur on the project site. Upon completion of nesting surveys, if nesting birds are identified on or within a zone of influence of the project site, a qualified ornithologist/biologist that frequently works with nesting birds shall prescribe adequate nesting buffers to protect the nesting birds from harm while the project is constructed. *Construction or earth-moving activity shall not occur within any established nest protection buffer prior to September 1 unless a qualified ornithologist/biologist determines that the young have fledged and have attained sufficient flight skills to avoid project construction zones, or that the nesting cycle is otherwise completed. In the region of the project site, most species complete nesting by mid-July; however, the date may be significantly earlier or later, and would have to be determined by the qualified biologist. At the end of the nesting cycle, and fledging from the nest by its occupants, as determined by a qualified biologist, temporary nesting buffers may be removed and construction may commence in established nesting buffers without further regard for the nest site. If active nesting buffers are established and a biologist does*			

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		not confirm that the nesting cycle is completed, then the nesting buffers must be maintained until the end of the CDFW recognized nesting season (September 1). *Should construction activities cause a nesting bird to do any of the following in a way that would be considered a result of construction activities, then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop the following agitated behavior: vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest. The revised non-disturbance buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified biologist in consultation with the City of Livermore.* *A report detailing compliance with the provisions set forth herein shall be prepared by the qualified biologist and submitted for review and approval to the City of Livermore Community Development Department.*			
4.3-3	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS, or State or Federally protected wetlands	*Trail Connection Option 2 – Undercrossing at Isabel Bridge* *4.3-3(a)* *Prior to the initiation of ground-disturbing activities, the project applicant shall submit a formal wetland delineation to the USACE for Trail Connection Option 2 for verification to determine the extent of all hydrological features, their jurisdictional status, and the extent of any impacts resulting from the proposed project. A copy of the wetland*	City of Livermore Community Development Department USACE	Prior to initiation of ground-disturbing activities	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
	(including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	*delineation and USACE verification letter shall be submitted to the City of Livermore Community Development Department. If Trail Connection Option 2 will result in impacts to features under the USACE's jurisdiction, Mitigation Measure 4.3-3(e) shall be required.* *Trail Connection Option 2 – Undercrossing at Isabel Bridge* *4.3-3(b) In the event that Trail Connection Option 2 – Undercrossing at Isabel Bridge is the selected Trail Connection Option for the proposed project, implement Mitigation Measures 4.5-1 and 4.5-2 related to the preparation of a SWPPP and final Stormwater Control Plan and Maintenance Plan during project construction and operations, respectively.* *SMP 40 and Trail Connection Option 2* *4.3-3(c) Prior to the commencement of ground-disturbing activities for SMP 40 or Trail Connection Option 2, if selected, the project contractor shall notify CDFW pursuant to Section 1600 of the CFGC. The notification shall include a description of all of the activities associated with the proposed project, not just those associated with the drainages and/or riparian vegetation. Impacts shall be outlined in the notification and are expected to be in substantial conformance with the impacts to biological resources outlined in the Biological*	City's Public Works Director City Engineer City of Livermore Public Works Department City of Livermore Community Development Department	Prior to the issuance of any grading permits Prior to commencement of ground-disturbing activities for SMP 40 or Trail Connection Option 2 (if selected)	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		Resources Assessments prepared for SMP 40 by Monk & Associates. Impacts for each activity shall be broken down by temporary and permanent impacts. A description of the proposed mitigation for biological resource impacts shall be outlined per activity and then by temporary and permanent impact. Information regarding project-specific drainage and hydrology changes resulting from project implementation shall be provided, as well as a description of stormwater treatment methods. Minimization and avoidance measures shall be proposed, as appropriate, and may include the following: • *To avoid fuels, lubricants, soils and other pollutants from entering Arroyo Mocho, wildlife friendly hay wattles (that is, no mono-filament netting) and silt fencing shall be installed at the top of bank. The use of mulch or any other substitute that may enter into the creek shall be prohibited.* • *Staging, operation and maintenance of heavy duty construction equipment shall be located away from Arroyo Mocho at all times and well outside of the riparian corridor unless the equipment is needed to specifically work on the realignment of Arroyo Mocho or the outfalls for the project.* • *To mitigate for any impacts to the riparian corridor of Arroyo Mocho,*			

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		disturbed areas shall be revegetated with native riparian plant species. Replacement of riparian trees to be removed shall be planted near the creek as feasible and/or adjacent to the existing limits of the riparian corridor to contribute to the existing riparian canopy. Riparian plantings shall be maintained for a minimum of 5 years to ensure that the canopy is enhanced and the understory restored. • *Non-native and invasive ornamental landscaping shall be precluded from use proximate to Arroyo Mocho.* • *To avoid debris from entering Arroyo Mocho, the final project design shall provide for enclosed and accessible trash receptacles (located outside of the riparian corridor).* • *New lighting introduced by the project shall be downcast and precluded from spilling over to the riparian corridor as direct lighting along creek corridors has a negative impact on nocturnal wildlife.* *Mitigation shall not result in a net loss of a Sensitive Natural Community. Written verification of Section 1600 of the LSAA shall be submitted to the City of Livermore Community Development Department.*			

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		Trail Connection Option 2 – Undercrossing at Isabel Bridge *4.3-3(d) Prior to the initiation of groundbreaking activity associated with Trail Connection Option 2, if selected, the project applicant shall ensure that authorization pursuant to the Clean Water Act (CWA) Section 401 from the San Francisco Bay Regional Water Quality Control board (RWQCB) is obtained.* *If Trail Connection Option 2 will result in impacts to features under the RWQCB's jurisdiction, the construction contractor shall adhere to all conditions outlined in the permit. The project applicant shall ensure that the proposed project replaces, restores, or enhances on a "no net loss" basis (in accordance with the RWQCB) the acreage of all riparian habitat and waters of the State that would be removed, lost, and/or degraded due to project implementation by methods agreeable to the RWQCB and the City, as appropriate, depending on agency jurisdiction, and as determined during the Section 401 permitting processes. Methods include, but are not limited to implementation of a riparian enhancement planting plan and/or tree planting mitigation at a 1:1 ratio, or as otherwise prescribed by the RWQCB.* *Trail Connection Option 2 – Undercrossing at Isabel Bridge* *4.3-3(e) If it is determined that work below the OHWM cannot be avoided for Trail Connection*	The San Francisco Bay Regional Water Quality Control board (RWQCB) City of Livermore	Prior to the initiation of ground-breaking activity associated with Trail Connection Option 2 (if selected) Prior to issuance of grading permits, if it	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		Option 2, prior to the issuance of grading permits, the project applicant shall apply for a CWA Section 404 permit from the USACE. Waters that would be lost or disturbed shall be restored, replaced, or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement, including the purchase of credits from a USACE approved mitigation bank at a 1:1 ratio, shall be at a location and by methods acceptable to the USACE. Documentation of compliance with the provisions set forth herein shall be submitted to the City of Livermore Community Development Department for verification.	Community Development Department USACE	is determined that work below the Ordinary High Water Mark (OHWM) cannot be avoided for Trail Connection Option 2 (if selected)	
Cultural and Tribal Cultural Resources					
4.4-2	Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5.	*4.4-2 In the event a potentially significant cultural resource is encountered during subsurface earthwork activities, all construction activities within a 100-foot radius of the find shall cease and workers shall avoid altering the materials until an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology has evaluated the find. The project applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The qualified archeologist shall make recommendations to the City of Livermore on the measures that shall be implemented to protect the discovered resources, including, but not limited to, culturally appropriate temporary and*	The Confederated Villages of Lisjan City of Livermore Community Development Department The Northwest Information Center (NWIC) The State Historic	In the event a potentially significant cultural resource is encountered during subsurface earthwork activities	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		permanent treatment, which may include avoidance of cultural resources, in-place preservation, and/or reburial on the project site so the resource(s) are not subject to further disturbance in perpetuity. In addition, The Confederated Villages of Lisjan shall be notified of the discovery. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. If necessary, excavation and evaluation of the finds shall comply with Section 15064.5 of the CEQA Guidelines. *Potentially significant archaeological site indicators include obsidian and chert flakes and chipped stone tools; grinding and mashing implements (e.g., slabs and handstones and mortars and pestles); bedrock outcrops and boulders with mortar cups; and locally darkened midden soils. Midden soils may contain a combination of any of the previously listed items with the possible addition of bone and shell remains, and fire-affected stones. Any previously undiscovered resources found during construction within the project site shall be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and*	Preservation Office (SHPO)		

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
Impact Number	**Impact**	**Mitigation Measure**		**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
			will be submitted to the City of Livermore, the Northwest Information Center (NWIC), and the State Historic Preservation Office (SHPO), as required.			
4.4-3	Disturb any human remains, including those interred outside of dedicated cemeteries.	*4.4-3*	*In the event of the accidental discovery or recognition of any human remains, further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur until the Alameda County Coroner has been notified to determine if an investigation into the cause of death is required. If the County Coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission (NAHC), which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. The potential exists that the NAHC may be unable to identify a most likely descendant, the most likely descendant fails to make a recommendation within 48 hours after notification by the NAHC, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the NAHC fails*	Alameda County Coroner Native American Heritage Commission (NAHC) City of Livermore Community Development Department	In the event of the accidental discovery or recognition of any human remains	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
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			to provide a measure acceptable to the landowner. In such case, the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the NAHC shall be submitted as proof of compliance to the City of Livermore Community Development Department.			
4.4-4	Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074.	*4.4-4*	*Implement Mitigation Measures 4.4-2 and 4.4-3.*	See Mitigation Measures 4.4-2 and 4.4-3	See Mitigation Measures 4.4-2 and 4.4-3	
Hydrology and Water Quality						
4.5-1	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality during construction.	*4.5-1*	*Prior to issuance of any grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the San Francisco Bay RWQCB. The contractor shall file the Notice of Intent (NOI) and associated fee to the SWRCB. A separate SWPPP shall be prepared for SMP 39 and SMP 40 (including the off-site trail connection area) if the components of the project are not constructed concurrently. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable.*	City of Livermore Public Works Director City Engineer	Prior to issuance of any grading permits	

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			Construction (temporary) BMPs for the project may include, but are not limited to: fiber rolls, straw bale barrier, straw wattles, storm drain inlet protection, velocity dissipation devices, silt fences, wind erosion control, stabilized construction entrance, hydroseeding, revegetation techniques, and dust control measures. The SWPPP shall be submitted to the City's Director of Public Works and the City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.			
4.5-2	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality during operations.	*4.5-2(a)*	*Prior to approval of final project improvement plans for SMP 39, SMP 40, and the selected off-site trail connection option, a final Stormwater Control Plan and Maintenance Plan shall be submitted to the City Director of Public Works, and the City Engineer for review and approval. A separate Stormwater Control Plan and Maintenance Plan shall be prepared for SMP 39, SMP 40, and the selected off-site trail connection option, if the components of the project are not constructed concurrently. The final Stormwater Control Plan and Maintenance Plan shall be in compliance with all applicable provisions of the C.3 Standards,*	City of Livermore Public Works Director City Engineer City of Livermore Public Works Department	Prior to approval of final project improvement plans for SMP 39, SMP 40, and the selected off-site trail connection option	

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			and shall meet the standards of the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment. Site design measures, source control measures, hydromodification management, and Low Impact Development (LID) standards, as necessary, shall be incorporated into the design and shown on the improvement plans. The final plans shall include calculations demonstrating that the water quality BMPs are appropriately sized, using methodology in the CASQA Stormwater BMP Handbook for New Development and Redevelopment. The final plans shall be submitted to the Public Works Department for review and approval.			
		4.5-2(b)	*Implement Mitigation Measures 4.3-3(b) through 4.3-3(e).*	See Mitigation Measures 4.3-3(b) through 4.3-3(e)	See Mitigation Measures 4.3-3(b) through 4.3-3(e)	
4.5-4	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which	*4.5-4*	*Prior to approval of final project improvement plans for SMP 39, SMP 40, and the selected off-site trail connection option, a final drainage plan shall be submitted to the City Director of Public Works, and the City Engineer for review and approval demonstrating the project's compliance with all State stormwater standards and requirements. A separate drainage plan shall be prepared for SMP 39, SMP 40, and the selected off-site trail connection option, if the components of the project are not*	City of Livermore Public Works Director City Engineer	Prior to approval of final project improvement plans for SMP 39, SMP 40, and the selected off-site trail connection option	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
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	would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or result in substantial erosion or siltation on- or off-site.		*constructed concurrently. The final drainage plan shall identify the water quality treatment and source control measures needed to ensure that stormwater runoff from the proposed project is adequately treated and peak flows do not exceed the capacity of the receiving storm drainage system.*			
4.5-5	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows, or in flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation.	*4.5-5*	*Prior to Building Permit issuance for SMP 39 (if buildings are determined to be within a SFHA) and SMP 40, the City or applicant shall obtain from the Federal Emergency Management Agency (FEMA), a Letter of Map Revision (LOMR).*	Federal Emergency Management Agency Chief Building Official	Prior to Building Permit issuance for SMP 39 (if buildings are determined to be within a Special Flood Hazard Zone [SFHA]) and SMP 40	
Noise						
4.6-1	Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or	*4.6-1(a)*	*Prior to issuance of a grading permit for SMP 40, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included*	City of Livermore Community Development Department	Prior to issuance of a grading permit for SMP 40	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
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	noise ordinance, or applicable standards of other agencies.	*within the plans and specifications for SMP 40, subject to review and approval by the City of Livermore Community Development Department. The project applicant shall demonstrate, to the satisfaction of the City that the project complies with the following:* • *Consistent with the Livermore Municipal Code, construction shall be limited to weekdays between the hours of 7:00 AM and 8:00 PM and Saturdays through Sunday between the hours of 9:00 AM and 6:00 PM.* • *Either a temporary noise barrier shall be built prior to development of the planned berm on the east side of the project site, or the berm shall be built prior to construction activities. The barrier/berm shall be a minimum of 10 feet tall. The barrier can be field-built provided it meets the following criteria:* ○ *The barrier shall be constructed to have a minimum surface density of four pounds per square foot (psf). For example, a stud wall with exterior-grade plywood sheathing and a stucco finish (or two layers of 5/8-inch thick plywood).* ○ *The barrier shall be free of cracks, and drainage holes/slots along the bottom of the barrier shall be kept to a minimum.*			

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		Where needed, drainage holes/slots shall be covered by one psf mass-loaded vinyl flaps (e.g., Kinetics KNM-100) so water can flow around the vinyl and still drain. ○ *Joints between sheathing layers shall be offset by 16 inches minimum.* • *Contractors shall use "quiet" models of air compressors and other stationary noise sources, where technology exists.* • *Internal combustion engine-driven equipment shall be equipped with mufflers which are in good condition and appropriate for the equipment.* • *Stationary noise-generating equipment, such as air compressors and portable power generators, shall be located as far away as possible from adjacent property lines.* • *Staging areas and construction material areas shall be located as far away as feasible from adjacent residences.* • *All unnecessary idling of internal combustion engines should be prohibited.* • *The contractor shall designate a "noise disturbance construction superintendent" who will be responsible for tracking and responding to any complaints about*			

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
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		construction noise. The noise disturbance construction superintendent shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall require that reasonable measures are implemented to correct the problem. The telephone number for the noise disturbance construction superintendent shall be posted at the construction site and included in any construction notices sent to neighbors.			
		4.6-1(b) Prior to issuance of a grading permit for the chosen off-site trail connection option, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included within the plans and specifications for the trail connection option, subject to review and approval by the City of Livermore Community Development Department. The project applicant shall demonstrate, to the satisfaction of the City, that the project complies with the following: • *All heavy construction equipment used on the proposed project shall be maintained in good operating condition, with all internal*	City of Livermore Community Development Department	Prior to issuance of a grading permit for the chosen off-site trail connection option	

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		combustion, engine-driven equipment fitted with intake and exhaust mufflers that are in good condition. • *All mobile or fixed noise producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency shall comply with such regulations while involved with a project activity.* • *Where feasible, electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment.* • *All stationary noise-generating equipment shall be located as far away as possible from the nearest residential uses.* • *Signs prohibiting unnecessary idling of internal combustion engines shall be posted at entrances to construction sites and at construction equipment staging areas.* • *The use of noise-producing signals, including horns, whistles, alarms and bells shall be for safety warning purposes only.* • *The use of temporary sound barriers shall be incorporated along the outer work area of the construction site, east of Isabel Avenue/SR 84. Barrier height and location(s) shall be determined by a qualified acoustical*			

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Impact Number	**Impact**	**Mitigation Measure**		**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
			engineer to ensure that the resultant construction noise levels at the nearest residence would meet the applicable standard. The sound barrier fencing shall consist of 0.5-inch plywood or minimum STC 27 sound curtains placed to shield nearby sensitive receptors. The plywood barrier shall be free from gaps, openings, or penetrations to ensure maximum performance.			
Public Services, Utilities, and Service Systems						
4.7-8	Increase in demand for utilities and service systems associated with the proposed project, in combination with future buildout of the Livermore General Plan.	*4.7-8(a)*	*Prior to approval of improvement plans, the project applicant shall pay the applicable sewer fair share fees to the City of Livermore Community Development Department. Payment of such fees shall be made in compliance with Livermore Municipal Code Chapter 13.28.*	City of Livermore Community Development Department	Prior to approval of improvement plans	
		4.7-8(b)	*In conjunction with submittal of improvement plans for SMP 39 or SMP 40, whichever is developed second as part of the proposed project, the project applicant shall submit an analysis of the pumping capacity available at the Airport Lift Station to convey additional flows generated by SMP 39 and SMP 40. The lift station capacity analysis shall be prepared by a registered civil engineer. According to the 2022 Airport Lift Station Analysis prepared by West Yost Associates, the City of Livermore has indicated that the pumping capacity necessary to accommodate SMP 39 and SMP 40 would*	City of Livermore Community Development Department	In conjunction with submittal of improvement plans for SMP 39 or SMP 40, whichever is developed second as part of the proposed project	

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		be 2,088 gallons per minute (gpm). The subsequent evaluation shall confirm the aforementioned estimate and be submitted for review and approval to the City of Livermore Community Development Department. *If the Airport Lift Station pumping capacity is determined to be inadequate, the project applicant shall ensure the pumping capacity is increased to the necessary gpm determined by the subsequent analysis, with all design recommendations contained therein incorporated into the improvement plans for SMP 39 or SMP 40, whichever is developed second as part of the proposed project. Incorporation of the design recommendations to increase the Airport Lift Station pumping capacity shall be submitted for review and approval to the City Engineer.*			
Transportation					
4.8-1	Conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities.	*4.8-1* *Prior to grading permit issuance for the SMP 39 and SMP 40 sites, as well as the chosen off-site trail connection option, the project applicant shall prepare a Construction Traffic Management Plan for review and approval by the City Engineer. The plan shall include the following:* • *A project staging plan to maximize on-site storage of materials and equipment;* • *A set of comprehensive traffic control measures, including scheduling of*	City Engineer	Prior to grading permit issuance for the SMP 39 and SMP 40 sites, as well as the chosen off-site trail connection option	

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		major truck trips and deliveries to avoid peak hours; lane closure proceedings; signs, cones and other warning devices for drivers; and designation of construction access routes; • *Provisions for maintaining adequate emergency access to the project site;* • *Permitted construction hours, per City of Livermore standards;* • *Designated locations for construction staging areas;* • *Identification of parking areas for construction employees, site visitors, and inspectors, including on-site locations;* • *Signs posted at the entrances to the construction sites noting who to contact if there are questions or concerns, along with a contact phone number; and* • *Provisions for street sweeping to remove construction-related debris on public streets.*			
4.8-3	Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	*4.8-3* *Prior to the issuance of the first building permit, the project applicant shall be required to develop a Transportation Demand Management (TDM) Program for SMP 39 and SMP 40. The TDM Program shall be monitored by the project applicant/operator on an annual basis to determine the efficacy of the selected TDM strategies in achieving the reduction below the regional average VMT per employee of*	City of Livermore Engineering Division Chief Building Official	Prior to the issuance of the first building permit	

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		three percent (i.e., the performance target). An Annual Status Report on the TDM Program shall be submitted to the City of Livermore Engineering Division beginning a year after the issuance of any certificate of occupancy and shall include details on the TDM strategies, including an Employer Carpool Program which has a goal to reduce VMT per employee by approximately four percent and, thus, would meet and exceed the performance target. The Employer Carpool Program shall implement a ridesharing program and establish a permanent transportation management association with funding requirements for employers. Data shall be collected in October of each year and the Annual Status Report shall be submitted by December 31st of each year. The report shall be prepared in the form and format designated by the City. The data shall include project-generated VMT estimates compatible with the methodology used to estimate the benchmark VMT so that performance comparisons can be made. If the Annual Status Report demonstrates that the project is not in compliance with the performance target set forth in this mitigation measure, the project must incorporate additional TDM strategies to meet the performance target in coordination with City staff. The project applicant/operator may propose new TDM strategies that develop over time to further reduce project-generated VMT if substantial			

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		evidence is provided to support the efficacy of the strategy. If the Annual Status Reports demonstrate that the performance target has been achieved for five consecutive years once SMP 39 and SMP 40 are both fully occupied and operational, the project shall no longer need to provide annual reporting. The five-year reporting requirement shall reset when a new use occupies any portion of the SMP 39 or SMP 40 property.			
Initial Study					
I-a,b.	Would the project have a substantial adverse effect on a scenic vista? Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	*I-1.*	*In the event that Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84 is the selected Trail Connection Option for the proposed project, improvement plans associated with the proposed above-grade crossing shall be submitted to the City's Community Development Department for review and approval to ensure that the proposed above-grade crossing is constructed using soft earth tone colors that help the bridge blend in with the surrounding landscape.*	City of Livermore Community Development Department	In the event that Trail Connection Option 3 is the selected trail connection option for the proposed project	
VII-a.iii, a.iv,c,d.	Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: seismic-related ground failure, including liquefaction or landslides?	*VII-1.*	*All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to the issuance of building permits or grading permits, whichever comes first, to ensure that all geotechnical recommendations specified in the geotechnical recommendations*	City Engineer Chief Building Official Qualified Geotechnical Engineer	Prior to issuance of building permits or grading permits, whichever comes first	

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	Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? Would the project be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	*specified in the Geotechnical Investigation prepared for the proposed project by Cornerstone Earth Group are properly incorporated and utilized in the project design.* *VII-2.* *In the event that Trail Connection Option 2 – Undercrossing at Isabel Bridge or Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84 is the selected Trail Connection Option for the proposed project, in conjunction with the submittal of improvement plans associated with the proposed above-grade crossing, a final design-level geotechnical report shall be prepared and submitted to the City for review and approval. The site-specific geotechnical report shall be prepared by a State-registered civil engineer with the purpose of observing and sampling the subsurface conditions encountered at the proposed undercrossing or above-grade crossing sites and providing conclusions and recommendations relative to each crossing, as proposed. The recommendations presented therein shall be based on analysis of the data obtained during the geotechnical investigation and the local experience of the civil engineer regarding similar soil and geologic conditions. All recommendations set forth in the final design-level geotechnical report shall be appropriately incorporated into the design of the project*	City Engineer	In the event that Trail Connection Option 2 or Trail Connection Option 3 is the selected trail connection option for the proposed project in conjunction with the submittal of improvement plans associated with the proposed above-grade crossing	

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			and shall be subject to review and approval by the City Engineer.			
VII-f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	*VII-3.*	*The applicant shall retain the services of a professional paleontologist to educate the construction crew that will be conducting grading and excavation at the project site, as well as the off-site trail improvement areas. The education shall consist of an introduction to the geology of the project site and the kinds of fossils that may be encountered, as well as what to do in case of a discovery. Should any vertebrate fossils (e.g., teeth, bones), an unusually large or dense accumulation of intact invertebrates, or well-preserved plant material (e.g., leaves) be unearthed by the construction crew, then ground-disturbing activity shall be diverted to another part of the project site and the paleontologist shall be called on-site to assess the find and, if significant, recover the find in a timely matter. Finds determined significant by the paleontologist shall then be conserved and deposited with a recognized repository, such as the University of California Museum of Paleontology. The alternative mitigation would be to leave the significant finds in place, determine the extent of significant deposit, and avoid further disturbance of the significant deposit. Proof of the construction crew awareness training shall be submitted to the City's Community Development Department in the form of a copy of training materials and the completed training attendance roster.*	City of Livermore Community Development Department	Prior to any ground-disturbing activities	

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IX-b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	*IX-1.*	*Prior to any ground-disturbing activities, the groundwater well observed along the western boundary of SMP 39 shall be assessed to determine whether it is located on-site. If the well is determined to be located on-site, the project applicant shall hire a licensed contractor to obtain the applicable abandonment permit from Alameda County Department of Environmental Health (ACDEH), and properly abandon the on-site well for review and approval by the ACDEH.* *In addition, the licensed contractor shall contact Zone 7 regarding its well located towards the middle of the SMP 39 site, and if feasible, obtain the applicable abandonment permit from ACDEH to properly abandon the well. Alternatively, if required by Zone 7, the applicant shall implement other measures identified by Zone 7, such as providing any necessary upgrades or adjustments to the well and/or well box elevation to match the final grade.*	Alameda County Department of Environmental Health (ACDEH) City of Livermore Community Development Department	Prior to any ground-disturbing activities	
		IX-2.	*In the event that Trail Connection Option 2 – Undercrossing at Isabel Bridge or Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84 is the selected Trail Connection Option for the proposed project, in conjunction with the submittal of improvement plans associated with the proposed above-grade crossing, a Phase I Environmental Site Assessment (ESA) shall*	City of Livermore Community Development Department	In the event that Trail Connection Option 2 or Trail Connection Option 3 is the selected trail connection option for the proposed project in conjunction with the	

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		be prepared and submitted to the City for review and approval. The Phase I Environmental Site Assessment (ESA) shall be prepared by a licensed contractor with the purpose of observing and assessing the conditions encountered at the proposed undercrossing or above-grade crossing sites and providing conclusions and recommendations relative to any hazardous conditions or materials identified on-site. All recommendations set forth in the Phase I Environmental Site Assessment (ESA) shall be appropriately incorporated into the project and shall be subject to review and approval by the City of Livermore Community Development Department.		submittal of improvement plans associated with the proposed above-grade crossing	

SMP 39/SMP 40 Project
Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum

Since the release of the Final Environmental Impact Report (EIR) for the SMP 39/SMP 40 Project (proposed project), the City received three additional comment letters in regard to the proposed project. Written comments were received from the following entities:

Date	Commenter
1/28/2024	Brian Wines, San Francisco Bay Regional Water Quality Control Board
1/31/2024	Dean Wallraff, Advocates for the Environment
2/14/2024	Stephanie Papayanis, Attorneys for Carpenters Local 713

The comment letters are provided as Attachment 1. While CEQA does not require that written responses be provided for letters received after the close of the public review period, the comments are acknowledged by the City, and the City has chosen to prepare written responses to the comments for the decision-makers consideration in making an informed decision. Responses to the first two letters are provided below. Where revisions to the EIR text are required in response to a comment, new text is double underlined and deleted ~~text is struck~~ through. Responses to the third letter (Attorneys for Carpenters Local 713) were provided in a supplemental memo (attached) provided in advance of the Planning Commission public hearing. Responses to additional letters received after the Planning Commission staff report was published are also attached as a separate Supplemental Responses to Comments document.

The comments received did not identify any new significant effect, substantial increase in severity of an impact identified in the EIR, or any significant new information. Therefore, recirculation of the EIR is not required.

It should also be noted that the figures included in the Draft and Final EIR show that the SMP 40 site erroneously includes a parcel between the SMP 40 parcel and the parcels containing the quarries adjacent to the west. The SMP 40 site does not include this parcel and the City is not annexing this parcel. Therefore, all figures included in the Draft EIR have been revised, as shown at the end of this document, to accurately reflect the boundaries of the SMP 40 site accordingly. It should be noted that the written descriptions of the SMP 40 site, as well as the associated SOI amendment and annexation areas, are accurate in the Draft and Final EIR, and, therefore, further revisions to the Draft EIR text beyond what is presented in the Final EIR are not warranted. The changes to the figures as presented herein do not change the analysis or conclusions set forth within the Draft EIR.

Response to Brian Wines, San Francisco Bay Regional Water Quality Control Board

As stated in Response to Comment 3-3, included in the Final EIR, the proposed project does not include the use of pumps for stormwater treatment associated with SMP 40. All storm drainage operates by gravity alone and incorporates hydromodification and low impact development controls, described in more detail below.

As stated in Response to Comment 3-2 of the Final EIR, "…the western detention pond is intended for detaining high-flow runoff and would not provide stormwater quality or hydromodification controls."

In response to the comment and for clarification purposes, page 4.5-25 of the Draft EIR is hereby revised as follows:

SMP 40

As shown on the Preliminary Stormwater Quality Control Plan prepared for SMP 40 (see Figure 4.5-5), stormwater ~~on the SMP 40 site would~~ will be collected and treated for quality and hydromodification through an on-site storm drainage system, which ~~would include~~ includes an underground ~~detention storage~~ infiltration and hydromodification control system comprised of three parallel 96-inch-~~wide~~ diameter, 1,000-foot-long corrugated metal pipes. ~~The underground detention storage system would connect to the existing Oak Detention Basin, located to the north of the site, where water would be treated in accordance with the regional C.3 standards.~~ This system is designed to retain and infiltrate the site's storm water quality volume. Stormwater in excess of this volume will be metered from the treatment system via gravity to the existing Oak's Business Park detention basin. The underground infiltration system is designed to meet BAHM/C.3/stormwater requirements and the existing Oak's Business Park Detention Basin is not taken into account for BAHM/C.3/stormwater treatment purposes.

In addition, the SMP 40 storm drainage system would include installation of at least two Contech Engineered Solutions Vortech Systems Hydrodynamic Separators to provide pretreatment and trash capture, prior to conveyance of flows to the corrugated metal pipes. The Vortech Systems Hydrodynamic Separators meet emerging stormwater treatment technologies (TAPE) certification standards and would be installed in areas proposed for disturbance as part of development of SMP 40.

Outflow from the Oak's Business Park Detention Basin would flow north through an existing 24-inch storm drain line to West Jack London Boulevard, where runoff would be conveyed north into the existing modified channels at the Livermore Municipal Airport, before ultimately discharging at the existing large drop structure under West Jack London Boulevard, west of the Livermore Municipal Airport.

The proposed ~~detention~~ on-site infiltration system as described above would include an overflow connection to Arroyo Mocho to the south. A flap gate would be installed on the outlet to prevent water from Arroyo Mocho to backflow into the underground storage system.

Similarly, in response to the comment and for clarification purposes, page 3-17 of the Draft EIR is hereby revised as follows:

~~According to the Stormwater Quality Control Plan that has been prepared for the SMP 40 site, stormwater from impervious areas within SMP 40 would flow to a number of catch basin filtration inserts located throughout the SMP 40 site. The catch basins would connect a new network of stormwater lines to three 96-inch underground storage vaults located west of Building 1, within the internal drive aisle, between the dock doors and trailer parking. The storage vaults would be placed five feet underground and surrounded by rock. Stormwater from the storage vaults would be routed north and west to the existing detention basin located northwest of Building 1, within the Oaks Business Park, before being ultimately directed into a portion of the Arroyo Mocho Bypass Channel.~~

As shown on the Preliminary Stormwater Quality Control Plan prepared for SMP 40 (see Figure 4.5-5), stormwater will be collected and treated for quality and hydromodification through an on-site storm drainage system, which includes an underground infiltration and hydromodification control system comprised of three parallel 96-inch-diameter, 1,000-foot-long corrugated metal pipes. This system is designed to retain and infiltrate the site's storm water quality volume. Stormwater in excess of this volume will be metered from the treatment system via gravity to the existing Oak's Business Park detention basin. The underground infiltration system is designed to meet BAHM/C.3/stormwater requirements and the existing Oak's basin is not taken into account for BAHM/C.3/stormwater treatment purposes.

> In addition, the SMP 40 storm drainage system would include installation of at least two Contech Engineered Solutions Vortech Systems Hydrodynamic Separators to provide pretreatment and trash capture, prior to conveyance of flows to the corrugated metal pipes. The Vortech Systems Hydrodynamic Separators meet emerging stormwater treatment technologies (TAPE) certification standards and would be installed in areas proposed for disturbance as part of development of SMP 40.

The above revisions amplify the analyses contained in the Draft EIR and do not change the conclusions of the Draft EIR.

In addition to stormwater treatment, the proposed infiltration system is designed to provide hydromodification controls. It should be noted that as part of the project application process, Bay Area Hydrology Model (BAHM) calculations showing the proposed infiltration system's compliance with applicable hydromodification requirements were provided to the City of Livermore Engineering Division. Based on the above, the design of the SMP 40 stormwater system would be MRP-compliant. Furthermore, Mitigation Measure 4.5-2(a) requires that the final Stormwater Control Plan and Maintenance Plan prepared for the proposed project comply with all applicable provisions of the Alameda Countywide Clean Water Program C.3 Stormwater Technical Guidance publication and meet the standards of the CASQA Stormwater BMP Handbook for New Development and Redevelopment. Please see Response to Comment 3-2 above. In addition, the City would require pretreatment measures with TAPE certification as a condition of approval for the proposed project in response to the comment.

The City is actively coordinating with Zone 7 regarding the commenter's concerns with respect to groundwater quality.

Response to Dean Wallraff, Advocates for the Environment

Advocates for the Environment did not provide a comment letter on the Draft EIR during the 45-day public review period, which closed on October 13, 2023. Nonetheless, the following are responses to the comments received by Advocates for the Environment, which are organized to correspond with the headers included in the comment letter.

The City Should Require the Project to be Net-Zero

Neither the City, nor the Bay Area Air Quality Management District (BAAQMD), or any other regulatory agency with approval authority over the proposed project has a specific requirement that the project be net zero. Thus, a nexus for the City to require the proposed project to be net zero does not exist. Any obligation for the proposed project to be net zero would be voluntary by the applicant, and the project applicant has not indicated such voluntary measures would be implemented. Nonetheless, the comment is noted for the record and will be forwarded to the decision-makers for their consideration.

GHG Significance Analysis

Responses to the specific comments related to the greenhouse gas (GHG) analysis included in the Draft EIR are provided below.

Mischaracterization of the BAAQMD's Recommended Threshold

The BAAQMD has direct and indirect regulatory authority over sources of air pollution in the San Francisco Bay Area Air Basin (SFBAAB). The BAAQMD has adopted CEQA Thresholds for

Evaluating the Significance of Climate Impacts Justification Report (Justification Report),[1] which is included as Appendix B to their CEQA Air Quality Guidelines (BAAQMD Guidelines).[2] The Justification Report provides substantial evidence in support of the thresholds of significance developed by the BAAQMD. BAAQMD has recommended that lead agencies within the nine counties of the BAAQMD's jurisdiction use the thresholds of significance when considering the air quality impacts of projects under their consideration. As such, consistent with standard industry practice, the City of Livermore has elected to use the BAAQMD's thresholds of significance, which are supported by substantial evidence included in the Justification Report, in order to assess GHG emissions within the City.

The language quoted in the comment letter from pages 3.5 and 3.6 of the BAAQMD Guidelines is incomplete. The quoted paragraph in the BAAQMD Guidelines goes on to say, "Alternatively, a project for which these design elements are not implemented could still be determined to make a less-than-significant contribution of GHG emissions by demonstrating consistency with a local GHG reduction strategy that is consistent with state guidance (State CEQA Guidelines Section 15183.5[b])." In other words, as noted on pages 4.2-10 and 4.2-11 of the Draft EIR, the BAAQMD Guidelines either require that a project meets the minimum project design elements (i.e., the prohibition of natural gas, energy efficiency, the provision of on-site EV infrastructure, and VMT reductions), or the project is required to show consistency with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

According to CEQA Guidelines Section 15183.5(b), a local GHG reduction strategy is required to:

- Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
- Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;
- Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
- Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels; and
- Be adopted in a public process following environmental review.

The City of Livermore Climate Action Plan (CAP)[3] is a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b). Therefore, the City of Livermore CAP is consistent with the BAAQMD Guidelines and is compliant with State GHG reduction requirements.

Consistency with the CAP Checklist

The City of Livermore CAP lays out a comprehensive approach to meeting the City's climate goals through a range of strategies and actions. The strategies are organized by adaptation and mitigation topic (e.g., Wildfire, Flooding, Buildings and Energy, Transportation and Land Use,

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1 Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines, Appendix B: CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans.* April 2022.

2 Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines.* April 2023.

3 City of Livermore. *2022 Climate Action Plan.* Adopted November 28, 2022

etc.). Each topic identifies primary objectives the City will use to measure success. The City has aimed to complete the primary objectives before 2030. However, the primary objectives are not required to be met by each individual development project; rather, the primary objectives are intended as an overall goal for the City to meet through implementation of the specific strategies and actions included in the CAP.

For example, the primary objectives noted by the comment letter (i.e., adding 1,284 publicly accessible electric vehicle chargers by 2030; reducing Vehicle Miles Traveled [VMT] by two percent by 2030; achieving 10 percent bike mode share by 2030; supporting sustainable land use practices; improving local re-use and repair programs; and expanding the use of low-carbon and recycled building materials) are implemented through the Transportation and Land Use and Waste and Materials strategies and actions included in the CAP. However, not all strategies and actions are applicable to the proposed project, as they are aimed at reducing emissions generated by existing development, municipal operations, or other land uses that are not proposed by the project (i.e., residential, commercial, etc.). The strategies and actions applicable to the proposed project were included in Table 4.2-15 of the Draft EIR. Specifically, Transportation and Land Use and Waste and Materials strategies and actions applicable to the proposed project include Action T-1.1, Strategy W-1, and Action W-1.5.

The overall waste reduction goal included in strategy W-1 is intended to ensure the City's compliance with Senate Bill (SB) 1383, which requires all jurisdictions in California to reduce organic waste disposal by 75 percent and increase edible food recovery by 20 percent relative to 2014 levels by 2025. As discussed in Table 4.2-15 of the Draft EIR, to address this goal on a project level, the proposed project would be required to comply with all applicable provisions of Chapter 8.08, Solid Waste Management, of the City's Municipal Code. According to Section 8.08.1030(G) of the City's Municipal Code, Article XII, Reduction of Organic and Recyclable Materials Deposited in Landfills, of Chapter 8.08 is adopted pursuant to the California Department of Resources Recycling and Recovery's (CalRecycle's) SB 1383 regulations, and the activities to be carried out under Article XII are entirely within the scope of the SB 1383 regulations. Therefore, compliance with such requirements would ensure that the proposed project would be consistent with strategy W-1 and is helping the City to meet the diversion goals established by SB 1383.

In addition, the Community Activation Guide included in the CAP is a list of voluntary measures that individuals (i.e., residents, businesses, etc.) can implement to help reduce emissions, and is not required to be implemented by development projects.

Overall, project consistency with all applicable strategies and actions set forth within the City of Livermore CAP was addressed in Table 4.2-15 of the Draft EIR, and, thus, the conclusion included in the Draft EIR that the proposed project is consistent with the City's CAP remains adequate.

Confusing GHG Analysis

The Standards of Significance listed on pages 4.2-38 and 4.2-39 of the Draft EIR are the required checklist questions included in Appendix G of the CEQA Guidelines related to air quality, GHG emissions, and energy. Based on Appendix G of the CEQA Guidelines, a significant impact related to air quality, GHG emissions, or energy would occur if the proposed project would result in any of the listed criteria included on pages 4.2-38 and 4.2-39 of the Draft EIR.

In order to assess the proposed project's impacts under each Standard of Significance, the lead agency (in this case, the City of Livermore) may elect to use certain thresholds of significance. In the case of the proposed project, the City of Livermore has elected to use both the BAAQMD's approved thresholds of significance as set forth in the BAAQMD Guidelines and consistency with

the City's CAP to assess the project under the Standards of Significance listed on pages 4.2-38 and 4.2-39 of the Draft EIR.

Inconsistency with Applicable Plans
As discussed on page 6-2 of the BAAQMD Guidelines, as well as within the Justification Report, the BAAQMD's GHG emissions thresholds were established in compliance with California's climate goals as set forth in SB 32, Executive Order (EO) B-55-18, and EO S-03-05.3, as well as the State's Climate Change Scoping Plan. Similarly, the City of Livermore CAP has taken into consideration emissions reduction strategies set forth in Assembly Bill (AB) 32, SB 32, EO B-55-18, the State's Climate Change Scoping Plan. As such, the project's compliance with the BAAQMD thresholds and City of Livermore CAP would also be considered compliance with the plans noted in the comment letter.

<u>The DEIR's Reported Overall Emissions Differs from the CalEEMod Overall Outputs</u>
The project's quantified GHG emissions are presented for disclosure purposes only, consistent with BAAQMD recommendations.

When modeling using CalEEMod, Version 2020.4.0, the model produces a summer report, a winter report, and an annual report. GHG emissions in the summer and winter reports are presented in pounds per day (lbs/day), while GHG emissions from the annual report are presented in metric tons of carbon dioxide equivalent units per year ($MTCO_2e$/yr). The summer and winter CalEEMod reports are used to estimate the project's average daily criteria pollutant emissions in units comparable to the applicable thresholds of significance for such pollutants (i.e., lbs/day). However, standard industry practice is to present GHG emissions on an annual basis, in $MTCO_2e$/yr, as an individual project's daily GHG emissions are at a micro-scale level relative to global GHG emissions, and short-term generation of GHG emissions is not typically expected to generate a significant contribution to global climate change. The GHG emissions presented for SMP 39 and SMP 40 in the Draft EIR represent the maximum annual GHG emissions that would be generated during project construction and operations. Neither the State, the City, nor BAAQMD have a requirement that the maximum daily GHG emissions of a project be specifically disclosed within a CEQA document. Even if such emissions were presented within the Draft EIR, the conclusions identified within the Draft EIR would not change, as the applicable threshold of significance for GHG emissions is qualitative. Furthermore, the modeling results were not omitted from the Draft EIR; rather, the modeling results were provided as Appendix C to the Draft EIR, which was available to the public during the public review period for the Draft EIR.

While CalEEMod has the capability to calculate GHG emissions associated with changes in vegetation, which can provide a more complete picture of GHG emissions, such estimations are not required by BAAQMD to be included in project modeling. In addition, as noted above, because the applicable threshold of significance for GHG emissions is qualitative, application of vegetation changes in the project modeling would not change the conclusions within the Draft EIR. Nevertheless, as discussed on page 4.3-35 of the Draft EIR, existing trees are not located within SMP 39. While trees are located along the southern boundary of SMP 40 associated with Arroyo Mocho, all construction activity associated with the development of SMP 40 would remain more than 25 feet from the bank of Arroyo Mocho, and all grading and construction activities would occur outside of the Arroyo Mocho's tree dripline. Thus, the trees located within SMP 40 would not be impacted by the proposed project, and the proposed project would not result in a decrease in carbon sequestration on-site related to the removal of existing trees.

Furthermore, as shown on Figures 3-13 and 3-14 of the Draft EIR, a total of 132 trees are proposed to be planted on SMP 40, and a total of 210,016 sf of the SMP 40 site would be

landscaped. While the exact number of trees or total amount of landscape area proposed for SMP 39 is not known at this time, all landscaping improvements would be required to be consistent with the City's Development Code and Design Standards and Guidelines, which require landscaping on-site to be equal to five percent of the building pad area and 16 percent of the parking area, as well as one tree be planted for every six parking spaces. As such, the number of trees on-site would substantially increase with development of SMP 39 and SMP 40 as compared to current conditions. Therefore, the provision of on-site trees and landscaping within SMP 39 and SMP 40 would ensure continued carbon sequestration following development of the proposed project.

Conclusion

Based on the responses provided above, the Draft EIR is in conformance with CEQA requirements. With regard to the reference to comments provided by SWAPE on the Draft EIR, please see Responses to Comments 6-22 through 6-29 included in Chapter 2 of the Final EIR. As explained therein, the analyses and conclusions included within the Draft EIR are adequate and recirculation of the Draft EIR is not required.

Figure 3-2
Approximate Project Site Boundaries Map

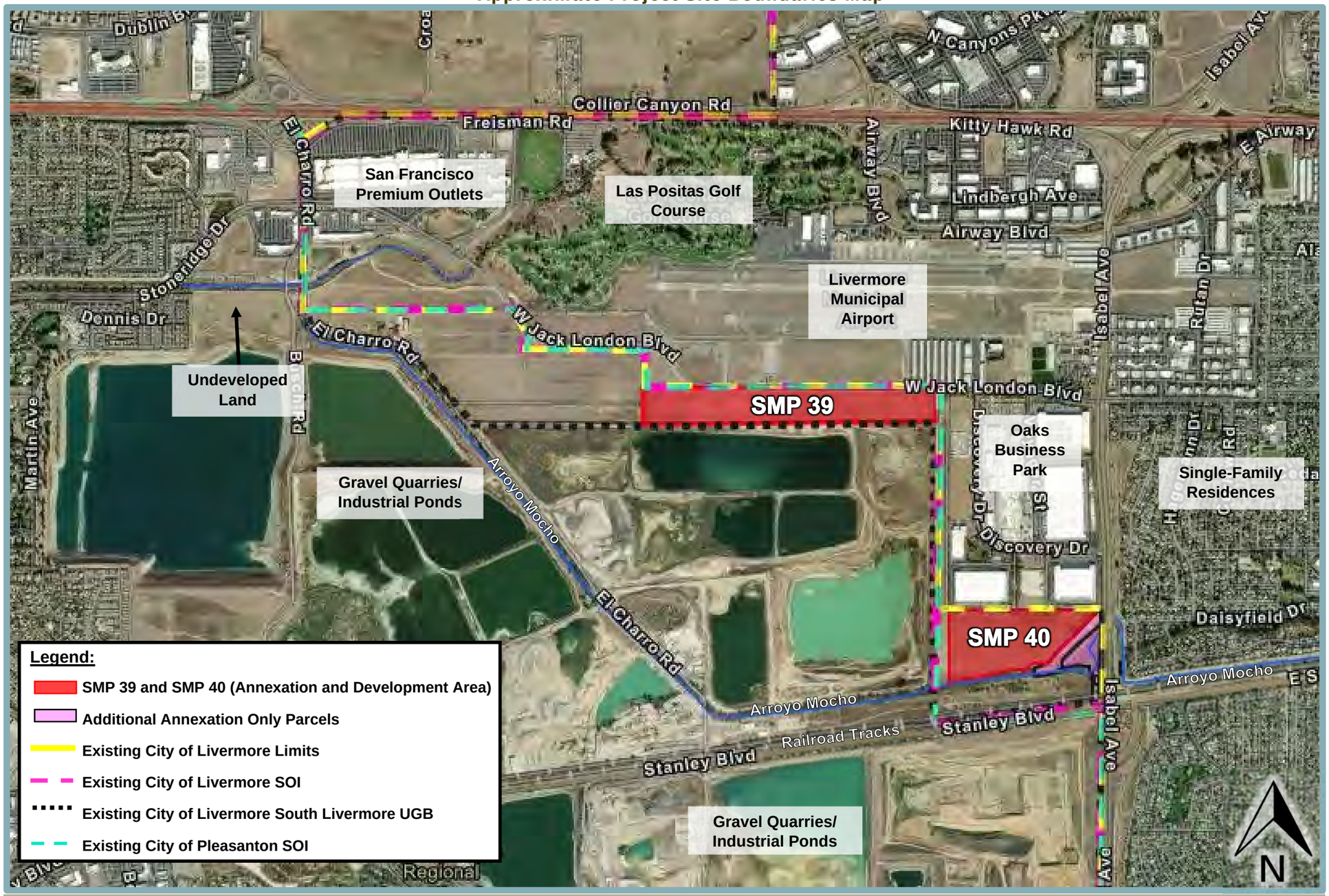


Figure 3-3
Proposed SOI Amendment Area

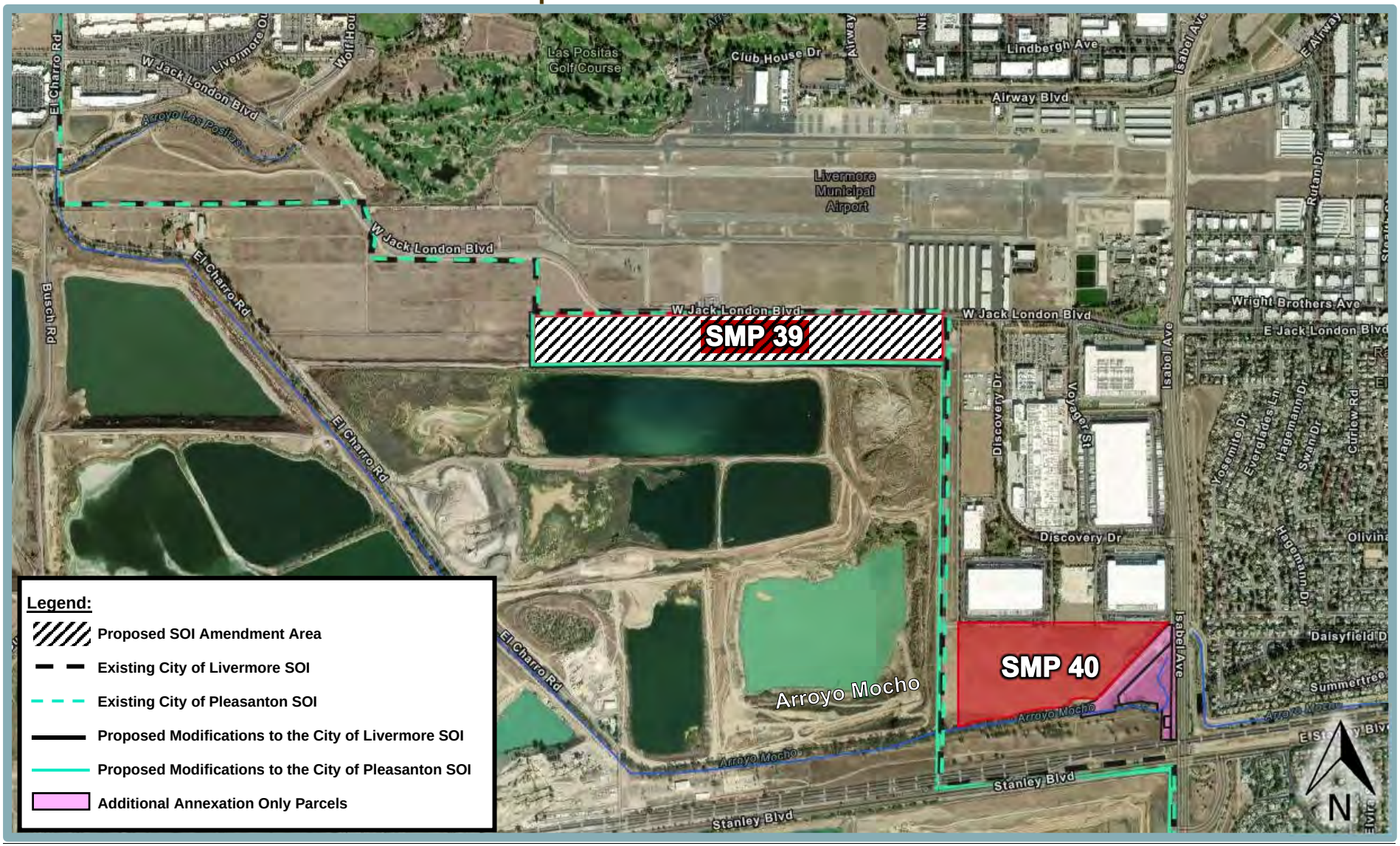


Figure 3-4
Proposed Annexation Area

Figure 3-5
Proposed City of Livermore Boundary Amendments

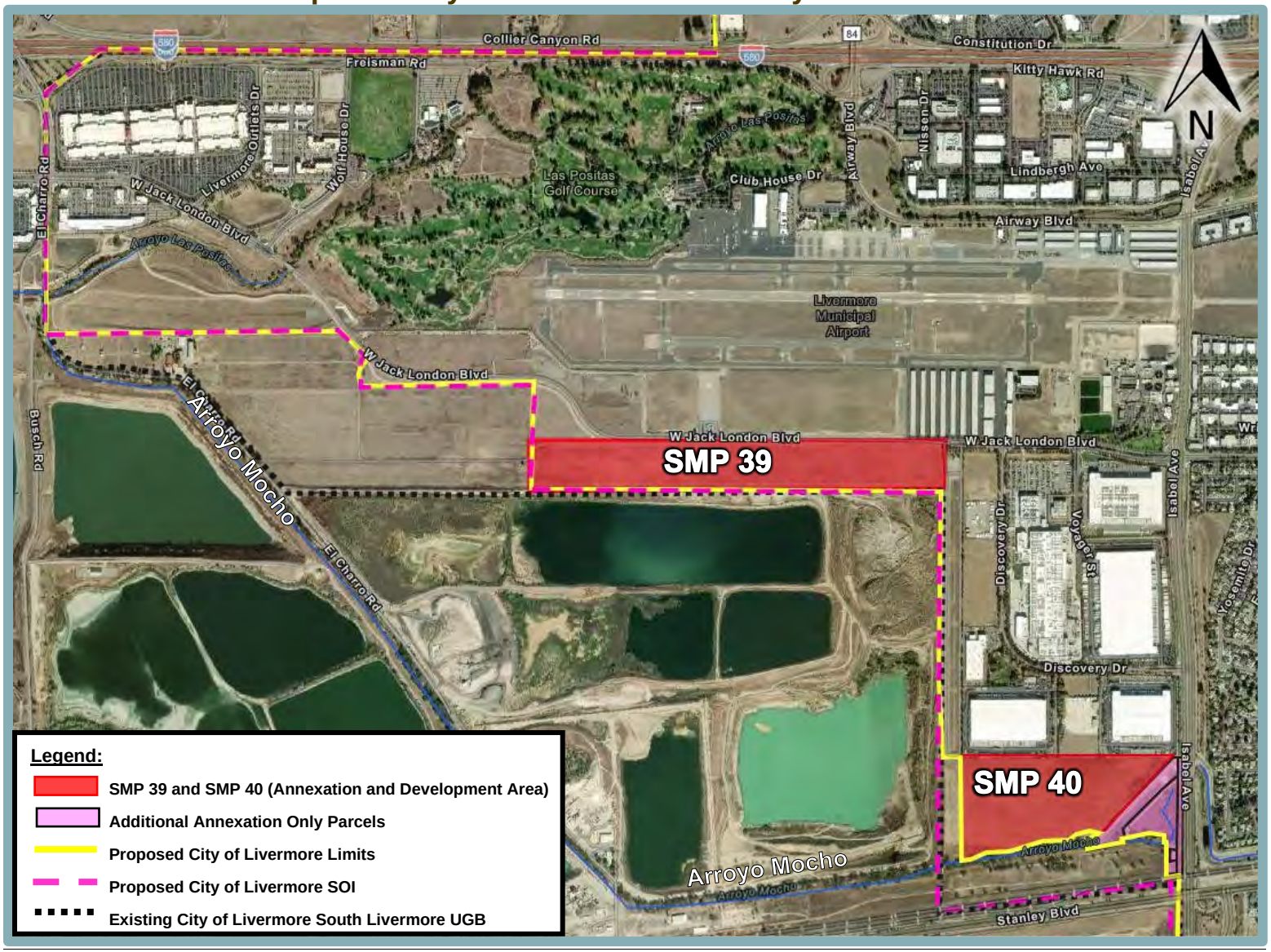


Figure 3-6
Proposed City of Pleasanton SOI Boundary Amendment

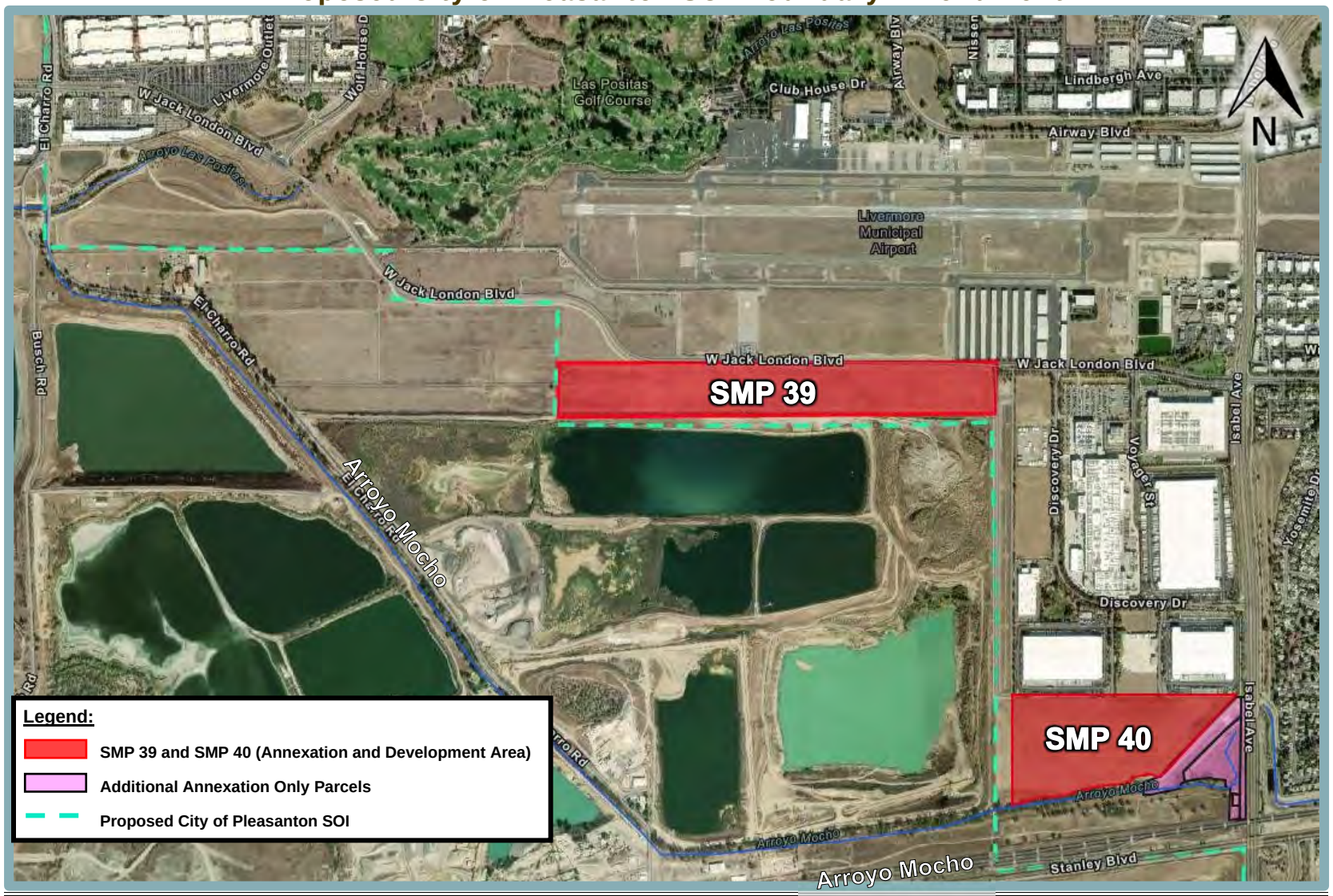


Figure 3-10
Existing and Proposed Trails

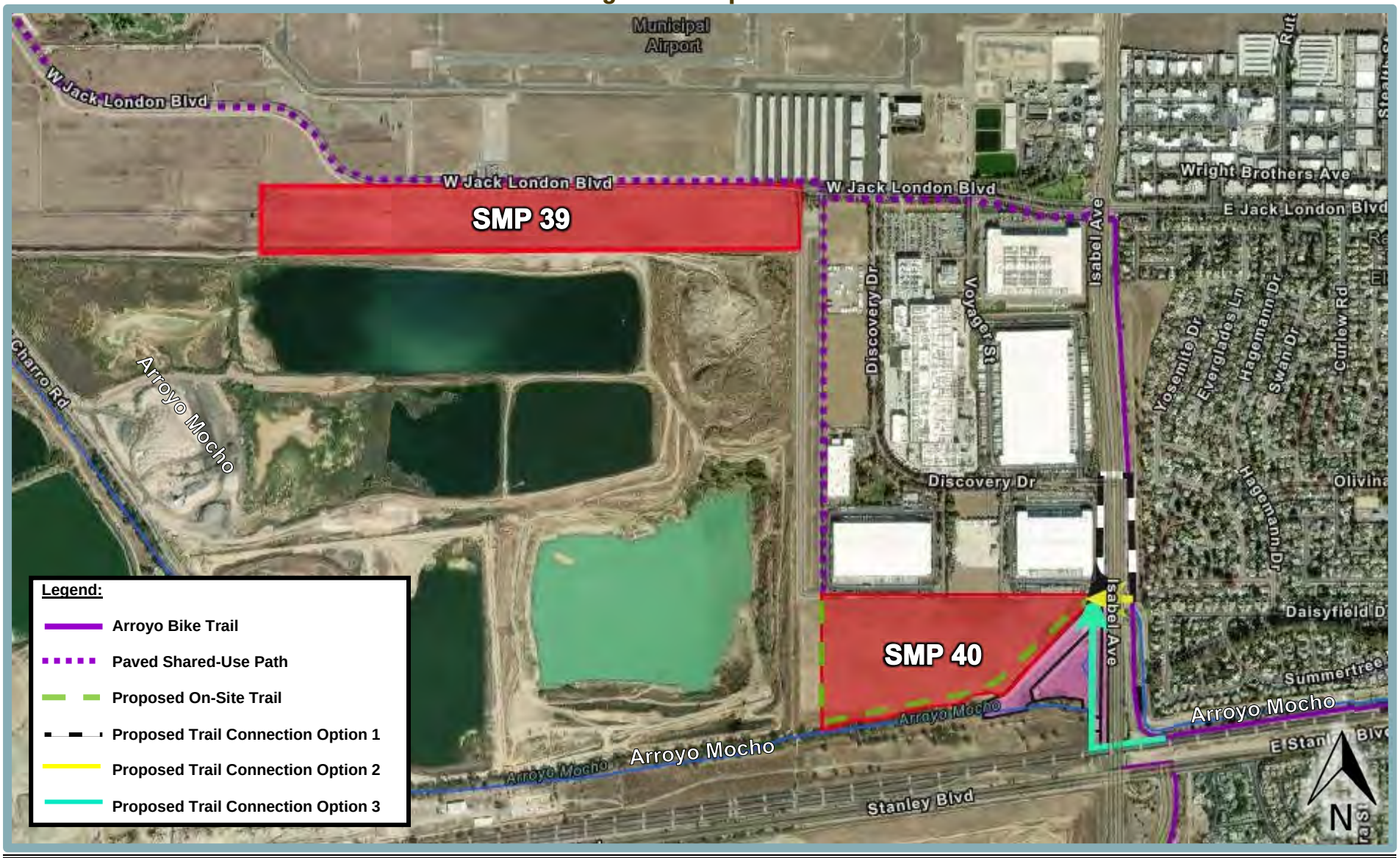


Figure 3-13
Preliminary Landscaping Plan for SMP 40

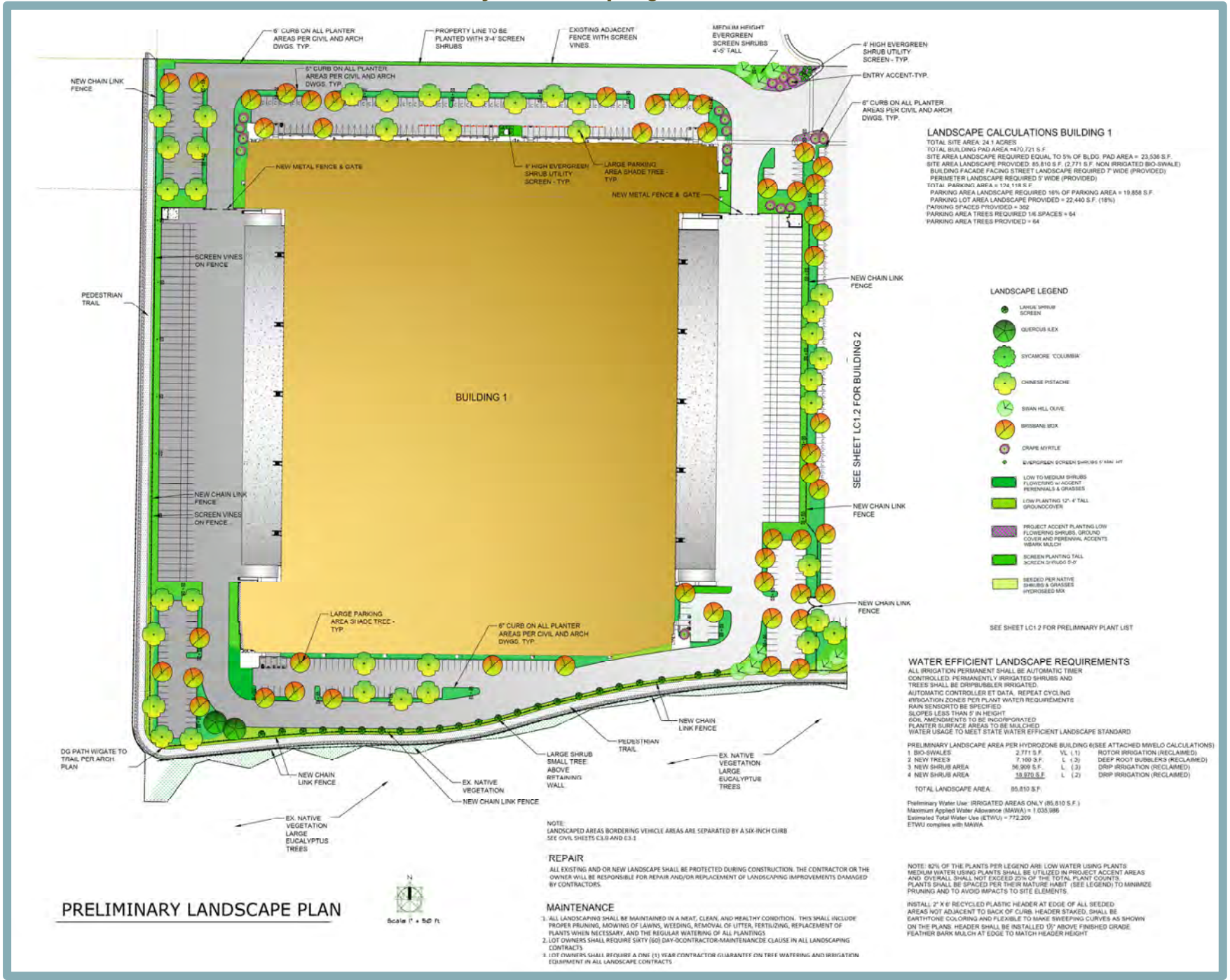
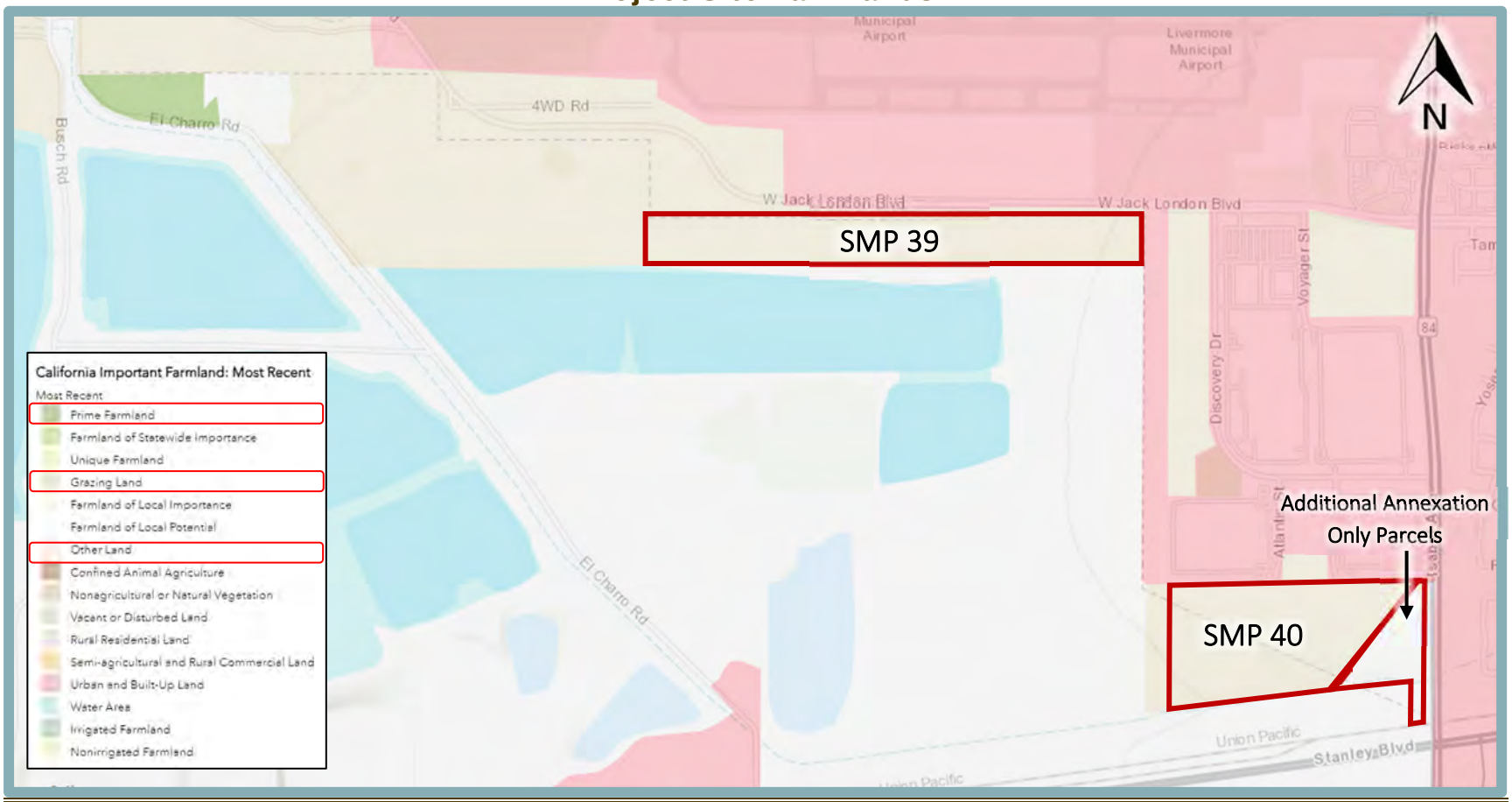


Figure 4.1-1
Project Site Soils

Note: Project site boundaries are approximate.
Source: USDA NRCS, Web Soil Survey, 2023.

Figure 4.1-2
Project Site Farmlands



Note: Project site boundaries are approximate.
Source: California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, 2023.

Figure 4.5-2
SMP 40 FEMA FIRM

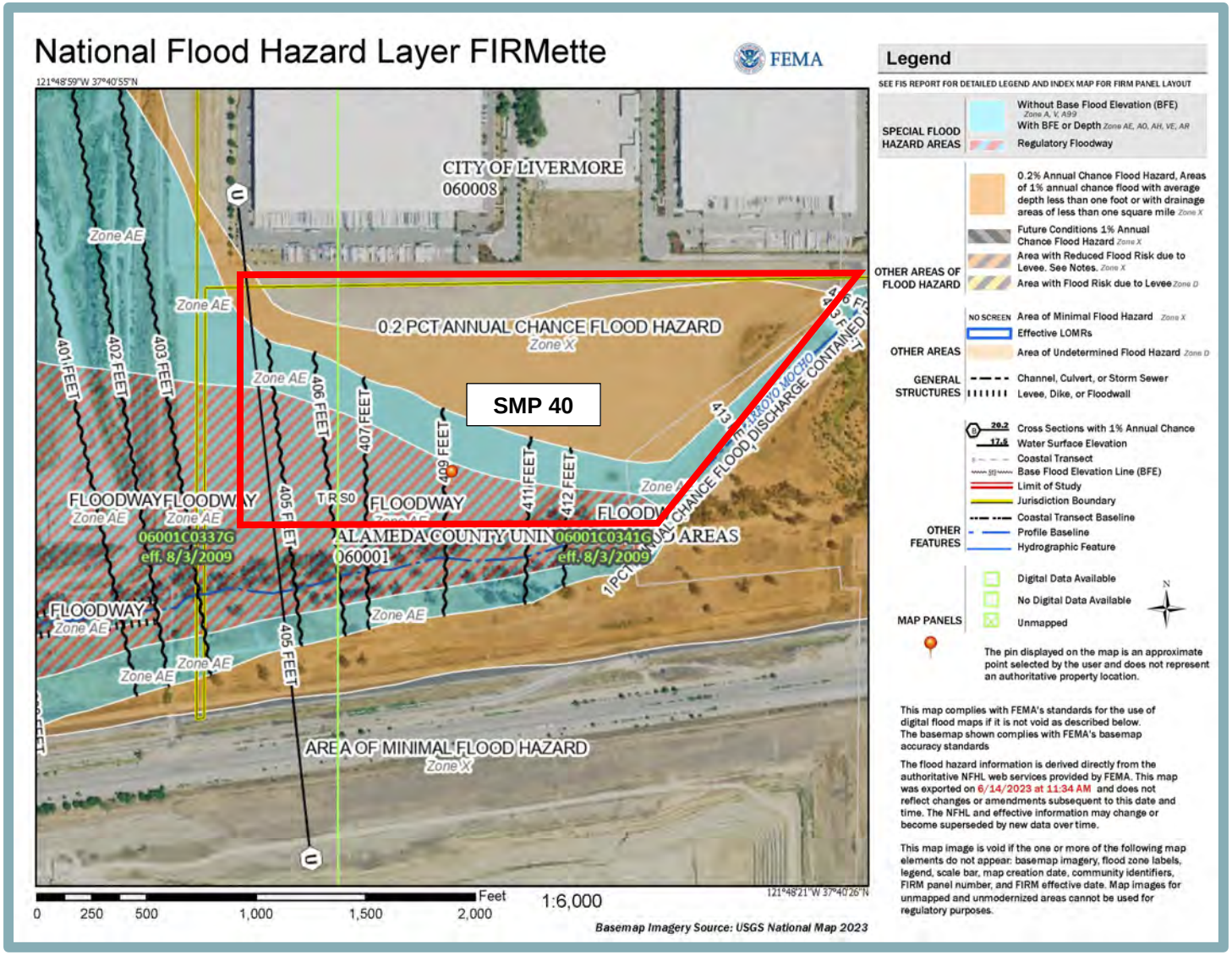


Figure 4.5-5
SMP 40 Preliminary Stormwater Quality Control Plan

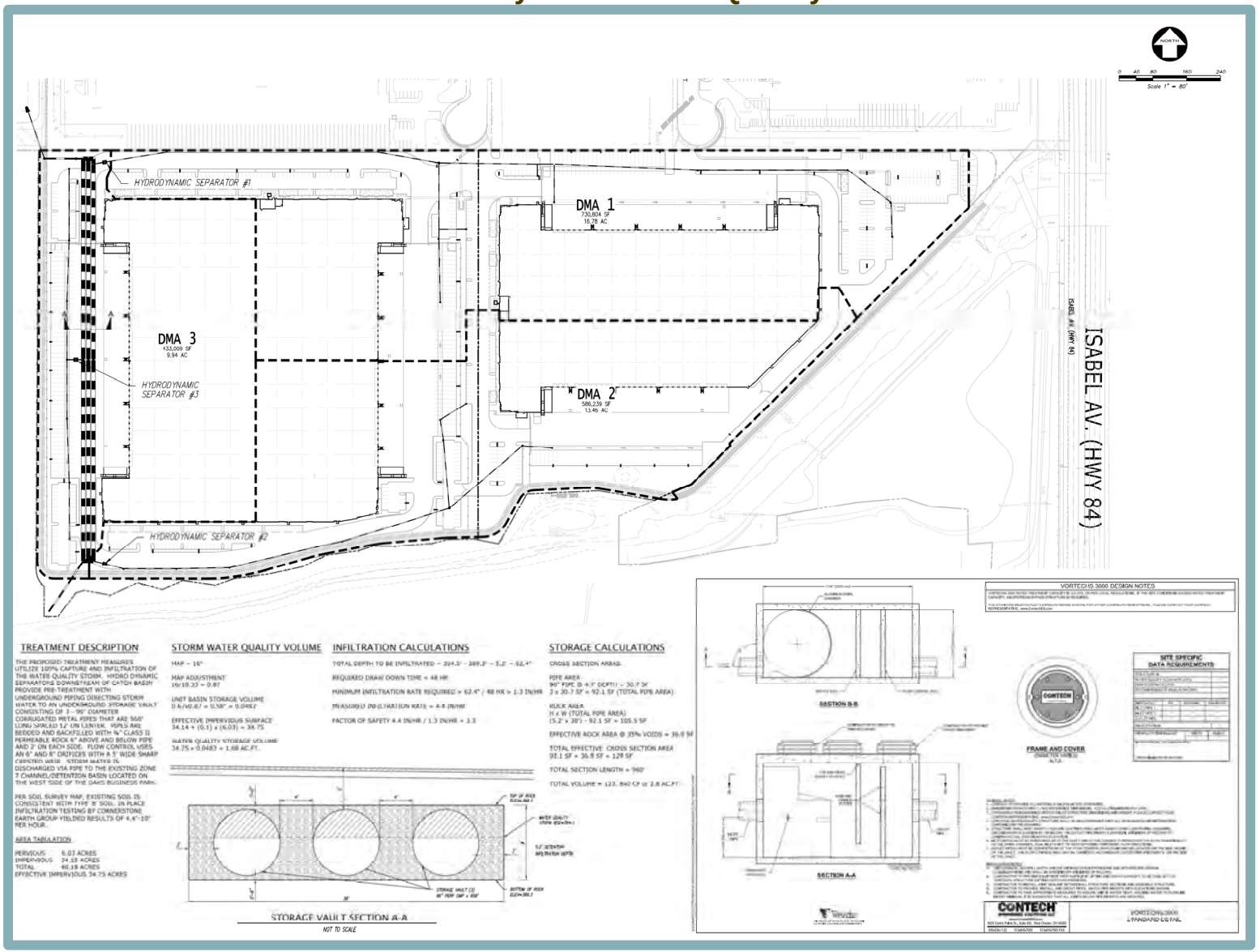
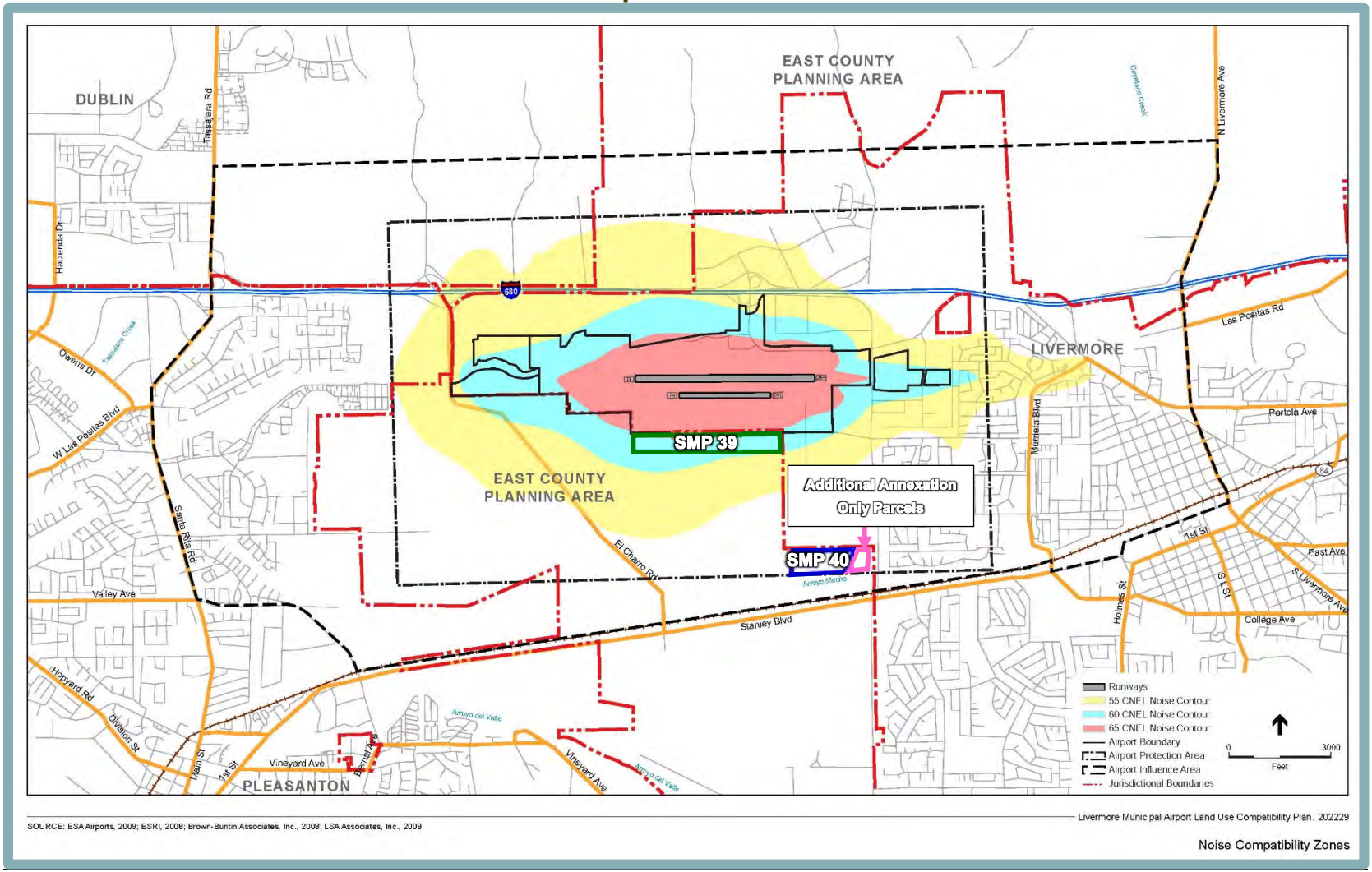


Figure 4.6-3
Livermore Municipal ALUCP Noise Contours



Source: Alameda County Community Development Agency, Livermore Executive Airport Land Use Compatibility Plan [Figure 3-2], August 2012.

Figure 4.7-1
Livermore Municipal Water Existing Service Area

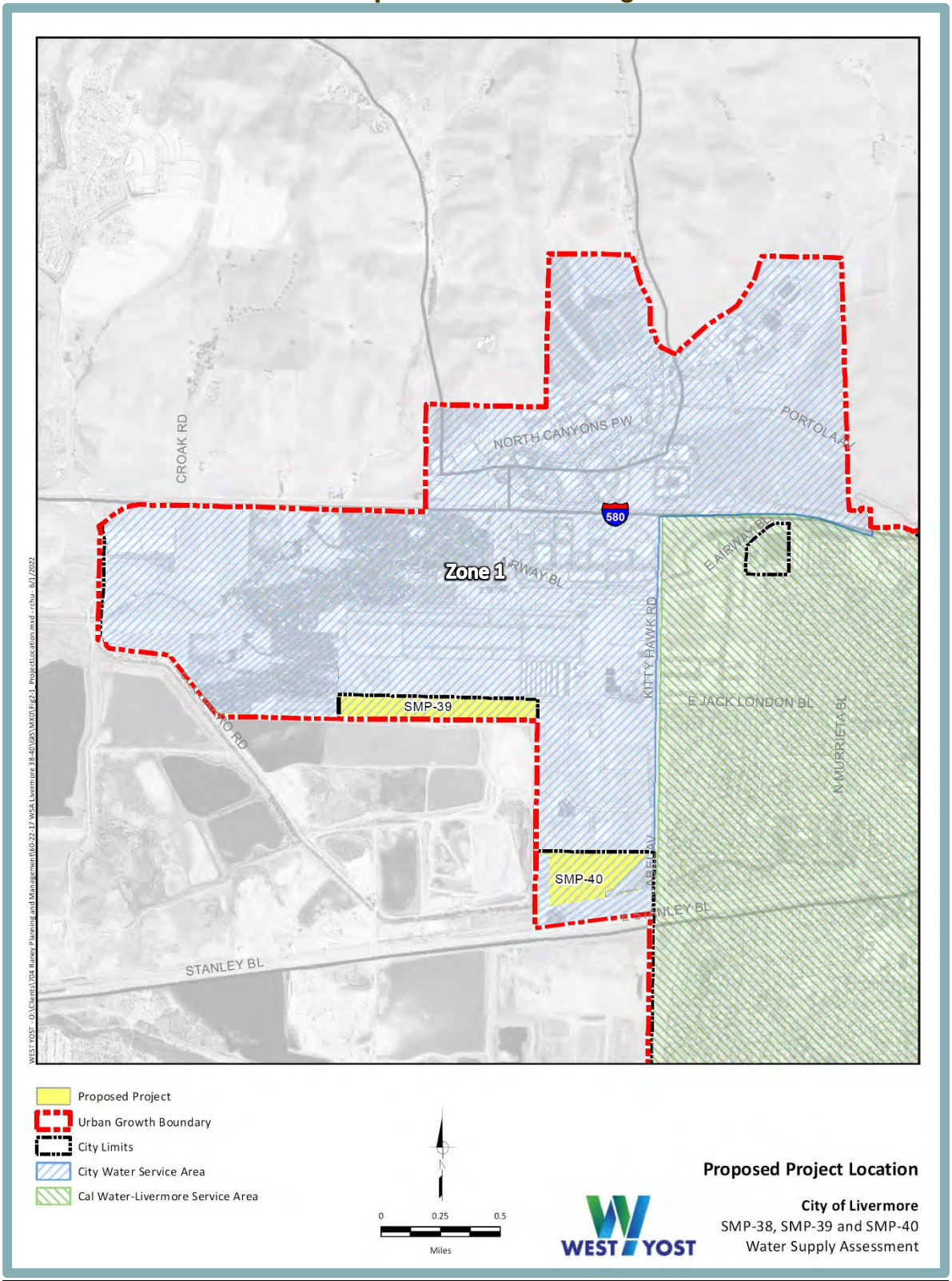
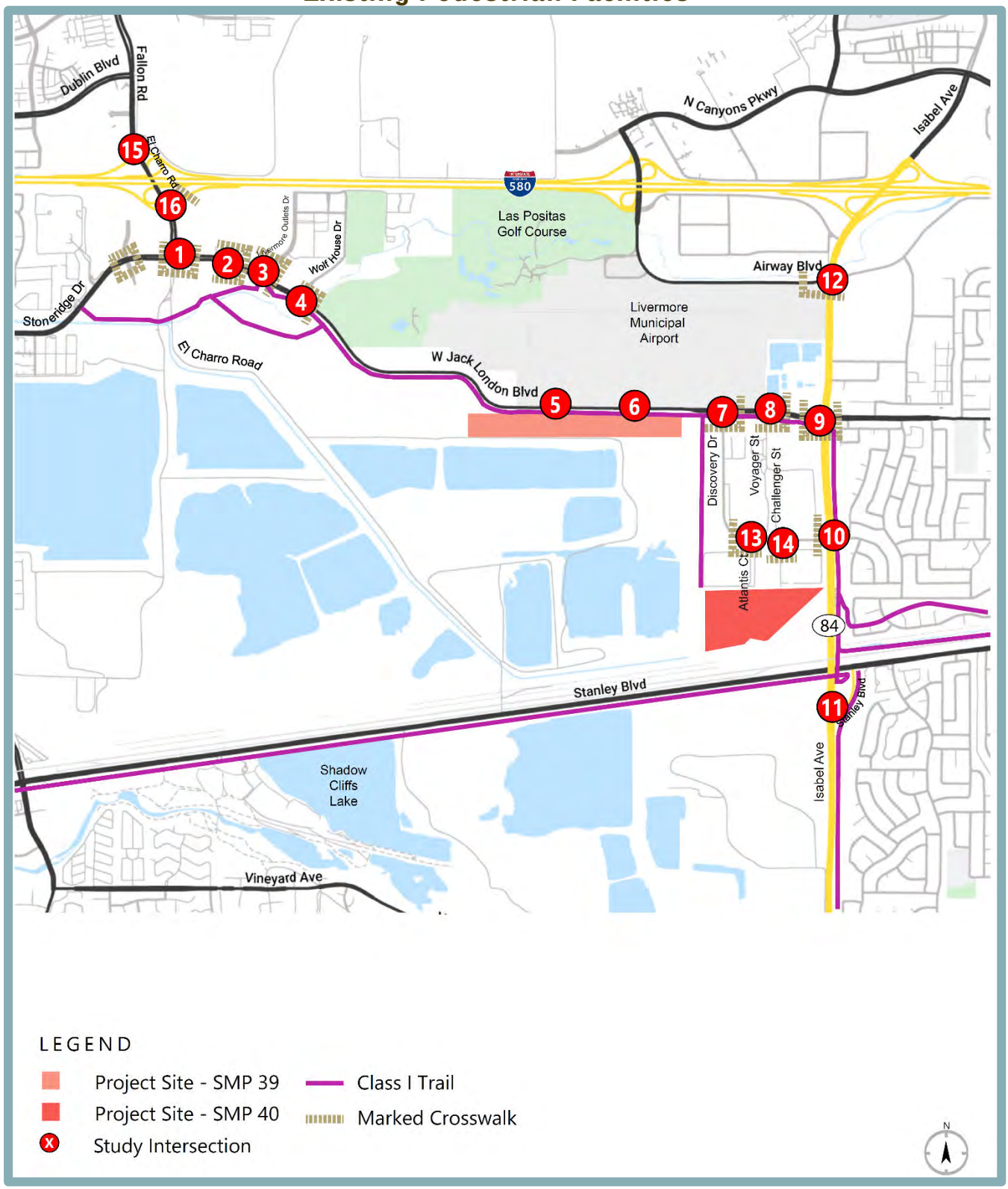


Figure 4.8-1
Existing Pedestrian Facilities



Attachments
Attachment 1 – Comment Letters
Attachment 2 – SMP 40 Flood Study Memorandum

Attachment 1
Comment Letters

From:	Wines, Brian@Waterboards
To:	Ashley Vera
Cc:	Debbie Salgado
Subject:	Re: SMP Final Environmental Impact Report (EIR)
Date:	Sunday, January 28, 2024 6:07:36 PM
Attachments:	image002.png image003.png

Some people who received this message don't often get email from brian.wines@waterboards.ca.gov. Learn why this is important

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Hi Ashley

The discussion of proposed C.3-compliant water quality treatment for SMP 40 is contradictory.

In one paragraph, it is stated that runoff from SMP 40 will be collected in 3 96-inch diameter, gravel packed subteranean pipes and that these pipes will be perforated so that the colleced runoff infiltrates into the ground. In another paragraph, it is stated that runoff collected in the 3 pipes will be pumped to the existing detention basin located northwest of Building 1 in the Oaks Business Park. Please resolve this discrepancy.

Detention ponds are not considered LID treatment. Runoff must be routed to properly-sized bioretention areas for C.3 compliance.

If runoff will actually be infiltrated into the ground below the 3 pipes, please confirm that Zone 7 has no concerns with respect to groundwater quality in the aquifer that Zone 7 manages.

The text describing stormwater treatment for SMP 40 also refers to a number of catch basin filtration inserts located throughout the SMP 40 site. Catch basin filtration inserts do not provide MRP-compliant water quality treatment.

Brian Wines
Water Resource Control Engineer
San Francisco Bay Regional Water Quality Control Board

January 31, 2024

Advocates for the Environment

A non-profit public-interest law firm
and environmental advocacy organization

Ashley Vera
Senior Planner
City of Livermore Community Development Department
1052 S. Livermore Avenue
Livermore, CA 94550

Via U.S. Mail and email to asvera@livermoreca.gov

re: Comments on the Environmental Impact Report for the SMP 39/SMP 40 Project, SCH No. 2023010091

Dear Ms. Vera:

Advocates for the Environment submits the comments in this letter regarding the Draft Environmental Impact Report (**DEIR**), as amended by the Final Environmental Impact Report (**FEIR**) for the SMP 39/SMP 40 Project (**Project**). The Project Site is located north of Stanley Boulevard, south of West Jack London Boulevard, east of El Charro Road, and west of Isabel Avenue in the City of Livermore (**City**), Alameda County. On the 105.34-acre site, the Project proposes to construct six industrial warehouse buildings totaling 755,500 square feet on assessor parcel numbers (**APN**) 904-3-1-4, known as Surface Mining Permit 39 (**SMP 39**), and construct two industrial warehouse buildings totaling 759,275 square feet on APN 904-10-2-2 (**SMP 40**).

Advocates for the Environment is a public interest law firm and advocacy organization with the mission to educate the public about the law as it pertains to the environment and provide legal services in support of environmental causes. We have reviewed the EIR and submit comments regarding the sufficiency of the EIR's Greenhouse-Gas (**GHG**) analysis under the California Environmental Quality Act (**CEQA**).

The City Should Require the Project to be Net-Zero

Given the current regulatory context and technological advancements, a net-zero significance threshold is feasible and extensively supportable. GHG emissions from buildings, including indirect emissions from offsite generation of electricity, direct emissions produced onsite, and from construction with cement and steel, amounted to 21% of global GHG emissions in 2019. (IPCC Sixth Assessment Report, Climate Change 2022, WGIII, Mitigation of Climate Change, p. 9-4.) This is a considerable portion of global GHG emissions. It is much more affordable to construct new building projects to be net-zero than to obtain the same level of GHG reductions by expensively retrofitting older buildings to comply with climate change regulations. Climate damages will keep increasing until

10211 Sunland Blvd., Shadow Hills, CA 91040 (818) 650-0030 X101 dw@aenv.org

we reach net zero GHG emissions, and there is a California state policy requiring the state to be net-zero by 2045. It therefore is economically unsound to construct new buildings that are not net-zero.

Environmental groups have achieved tremendous outcomes by litigation under CEQA. Two of the largest mixed-use development projects in the history of California, Newhall Ranch (now FivePoint Valencia), and Centennial (part of Tejon Ranch) decided to move forward as net-zero communities after losing CEQA lawsuits to environmental groups. The ability for these large projects to become net-zero indicates that it is achievable, even for large-scale developments. The Applicant for this Project should do the same.

We urge the City to adopt net-zero as the GHG significance threshold for this project. This threshold is well-supported by plans for the reduction of GHG emissions in California, and particularly the CARB Climate Change Scoping Plans. The CARB 2017 Scoping Plan states that "achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development." (CARB 2017 Scoping Plan, p. 101.) Additionally, the CARB 2022 Scoping Plan reaffirms the necessity of a net zero target by expressing: "it is clear that California must transition away from fossil fuels to zero-emission technologies with all possible speed … in order to meet our GHG and air quality targets." (CARB 2022 Scoping Plan, p. 184.) CARB further encourages a net-zero threshold in its strategies for local actions in Appendix D to the 2022 Scoping Plan. (CARB 2022 Scoping Plan, Appendix D p. 24-26.)

Moving this Project forward as a net-zero project would not only be the right thing for the City to do, but also would also help protect the City and the Applicant from CEQA GHG litigation.

GHG Significance Analysis

The DEIR analyzed GHG impact in the same section alongside air quality and energy impact. Although the City estimated operational emissions for SMP 39 independently of SMP 40, the total Project emissions would amount to approximately 6,308 metric tons carbon dioxide equivalent (**MTCO2e**) per year based on the estimates in the DEIR.[1] The City ultimately concluded that the impact was less than significant after briefly discussing the Bay Area Air Quality Management District (**BAAQMD**) recommended threshold and the City of Livermore Climate Action Plan (the **CAP**). (DEIR, p. 4.2-69—70.) The EIR's analysis of the Project's consistency with the BAAQMD guidelines and the CAP is flawed, as discussed below.

[1] 3,221 *MTCO2e SMP* 39 *overall operational emissions* +
3,087 *MTCO2e SMP* 40 *overall operational emissions* = 6,308 *MTCO2e project operational emissions*

Mischaracterization of the BAAQMD's Recommended Threshold

The BAAQMD's CEQA Guidelines provide non-binding, advisory information to lead agencies. As such, in order to rely on the Thresholds, the City still needs to provide substantial evidence in support of relying on any guidance from the BAAQMD. The DEIR presumed that the BAAQMD recommendation was mandatory, as indicated by the mandatory language of what the project "must" include, and altogether did not provide any independent rationale for why the BAAQMD recommendation is appropriate here. (DEIR, p. 4.2-69.)

Further, the DEIR did not include an important aspect of the BAAQMD guidelines, thereby taking the recommended threshold out of context from how it was presented in the BAAQMD CEQA Guidelines:

> The Air District's approach to developing thresholds of significance for climate impacts is to use a "fair share" approach for determining whether an individual project's GHG emissions would be cumulatively considerable. If a project would contribute its "fair share" of what is needed to achieve the State's long-term GHG reduction goals, then the lead agency can find that the project is adequately contributing to solving the problem of global climate change and that project's impact is not significant. Using this approach, the Air District has identified the necessary design elements required of new land use projects and plans being built today in order to achieve California's long-term climate goal of carbon neutrality by 2045. If these design elements are incorporated into the design and construction of a project, then the project would contribute its portion of what is necessary to achieve California's long-term climate goals—its "fair share"—and a lead agency reviewing the project under CEQA can conclude that the project would not make a cumulatively considerable contribution to global climate change.
>
> (Bay Area Air Quality Management District 2022 CEQA Guidelines, Chapter 3 "Thresholds of Significance," p. 3.5-3.6.)

Due to the 2045 carbon neutrality goal, which is within the Project's expected lifespan, the Project's fair share of emissions is the entirety of its GHG impact, and the specific design elements as presented in the BAAQMD as well as an appropriate GHG reduction strategy that meets CEQA Guidelines Section 15183.5(b), as the City notes in the DEIR, are merely a proxy for the determination of a Project's contribution to its fair share of GHG reductions.

To comply with the BAAQMD recommended threshold, the DEIR indicated that the Project would conform with the City of Livermore CAP. However, the City of Livermore CAP is contradictory to the basis of the BAAQMD recommendation, because it indicates that even following the CAP, Livermore will not be able to meet the goal of carbon neutrality by 2045, stating: "the strategies reasonably available to the city and included in this CAP do

not provide enough GHG emissions reduction to meet the long term 2045 GHG emissions goal." (Livermore CAP, p. 2.) This is not only contrary to the BAAQMD guidelines' emphasis on carbon neutrality by 2045, but also directly contradicts the DEIR's statement that the CAP's mitigation strategies are consistent with the State's GHG reduction targets. (DEIR, p. 4.2-70.)

CEQA requires environmental analysis that is supported by substantial evidence, including current scientific understandings and updated policy in California. Because the CAP Checklist is not in conformance with State policy, and the BAAQMD guidelines suggests it would be appropriate to use such an instrument (as long as it conforms with CEQA Guidelines Section 15183.5(b)) to demonstrate less-than-significant GHG impact, this framework of analysis is contrary to California's climate policy and therefore not supported by substantial evidence.

Consistency with the CAP Checklist

The City bases its evaluation under the first threshold on consistency with the City of Livermore's Climate Action Plan (the **CAP**). The Project is inconsistent with the CAP, and thus cannot use it to demonstrate compliance with the BAAQMD recommended threshold even if it was substantially supported.

First, the DEIR did not fully and adequately present the "Strategies and Actions" that would be required for consistency with the CAP, primarily avoiding the CAP's quantitative goals. For example, the DEIR included strategy W-1 which focuses on reducing landfill waste, but the DEIR did not mention the quantitative goal of 75% diversion by 2030, to be maintained each year. The City did not state how the Project would comply with this goal. Accordingly, the analysis of CAP consistency is erroneous and misleading to decision-makers and the public, contrary to the purpose of CEQA.

Second, the Project does not comply with certain strategies, actions, and goals that were set out in the CAP. The DEIR only listed eight strategies and actions that ignored the following objectives set out by the CAP (p. 31):

- Add 1,284 publicly accessible electric vehicle chargers by 2030;
- Reduce Vehicle Miles Traveled (**VMT**) by 2% by 2030;
- Achieve 10% bike mode share by 2030;
- Support sustainable land use practices;
- Improve local re-use and repair programs; and
- Expand the use of low-carbon and recycled building materials.

The DEIR did not analyze how the Project would achieve any of these goals and strategies and accordingly did not demonstrate CAP compliance by substantial evidence. In particular, the Project would not be consistent with a 2% reduction in VMT because the Project's estimated VMT per capita of 16.73 miles is above the current average VMT per Livermore employee of 16.20 miles.

Additionally, the CAP includes a Community Activation Guide which urges Livermore "individuals, businesses, and community groups" to purchase renewable energy, install solar panels and batteries, weatherize buildings, install a heat pump and electric appliances, use water-wise, fire resistant and permeable hardscape landscaping, among other measures. The DEIR did not assess how the Project would aim to comply with this portion of the CAP.

Overall, the failure to include, analyze, or account for these CAP strategies, actions, and goals invalidates the City's claim that the Project would be consistent with the CAP. The items listed in Table 4.2-15 are an incomplete account of the requirements under the CAP. Therefore, the City cannot rely on its inadequate discussion of CAP consistency to demonstrate that the Project would have a less-than-significant impact on GHGs.

Confusing GHG Analysis

The DEIR lists "Standards of Significance" for air-quality and GHG emissions (pp. 4.2-38, -39) and analyzes the Project's air-quality and GHG impacts under those standards (pp. 4.2-40-4.2-72), even though the DEIR states that "for the analysis within this EIR, the City has elected to use the BAAQMD's thresholds of significance and the City's 2022 CAP" (p. 4.2-39). This contradiction is a violation of CEQA, because it is misleading and confusing as to which thresholds of significance the DEIR uses for analysis of GHG impacts.

Inconsistency with Applicable Plans

The City did not appropriately apply part of the threshold that asked whether the Project would "[c]onflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs." (DEIR, p. 4.2-68.) This language requires that the EIR analyze the Project's consistency with *all* other applicable plans, not just the plans that the City prefers to analyze. However, the City solely analyzed consistency with the CAP, ignoring all other applicable plans, policies, and regulations for the reduction of GHGs, including, but not limited to, the 2022 Scoping Plan for Achieving Carbon Neutrality from the California Air Resources Board (**2022 Scoping Plan**), Senate Bill 32, which requires statewide GHG emissions to be reduced to 40% below 1990 levels by 2030, and Executive Order B-55-18 to achieve carbon neutrality by 2045—within the Project's projected lifespan. The Project is also inconsistent with CARB 2017 Scoping Plan, which sets as a goal the reduction of GHG emissions to 6 MTCO2e per capita by 2030 and 2 MTCO2e per capita by 2050.

Not only did the EIR not include any analysis for how the Project would be consistent with these measures, but the use of diesel and other GHG-emitting fossil fuels would prevent the achievement of at least some of these applicable plans and policies. Therefore, the Project would not only have a significant impact under the CAP, but also under the framework that the City adopted when it specified a review focused on conflicts with applicable plans, policies, and regulations.

The DEIR's Reported Overall Emissions Differs from the CalEEMod Overall Outputs

CalEEMod was used as a model to estimate anticipated Project emissions. The CalEEMod analysis was included as Appendix C to the DEIR and was inconsistent with the DEIR itself, resulting in inaccurate and misleading information for the public and decision-makers. These inconsistencies could have resulted in erroneous or underreported GHG emissions quantifications which undermine the EIR's usefulness as an informational document.

When a lead agency makes an estimate for project emissions, it should carefully and completely demonstrate the that the emissions outputs from the model are consistent with the analysis in the DEIR, to be accurate and not misleading about the GHG impact of the Project. Here, however, the CalEEMod overall outputs do not fully align with the information in the EIR. CalEEMod was run in six different runs for unmitigated GHG emissions: (1) Annual SMP 39, (Operational emissions of approximately 3,221); (2) Summer SMP 39 (Operational emissions of approximately 15,849 MTCO2e); (3) Winter SMP 39 (Operational emissions of approximately 15,387 MTCO2e); (4) Annual SMP 40 (Operational emissions of approximately 3,087 MTCO2e); (5) Summer SMP 40 (Operational emissions of approximately 15,066 MTCO2e); and (6) Winter SMP 40 (Operational emissions of approximately 14,608 MTCO2e). (DEIR, Appendix C.)

Notably, the operational emissions estimate included in the EIR only represented the annual outputs for SMP 39 and SMP 40, ignoring several of the CalEEMod runs. The "Winter" and "Summer" CalEEMod runs were not included in the totals or mentioned in the DEIR at all. There is also no indication of why the CalEEMod outputs for Winter and Summer are nearly five times the amount of the estimate reported in the DEIR. Nor did the City discuss why it omitted these outputs from the EIR, which are much higher than the estimate that the City used for its significance analysis. This is confusing, misleading, and not supported by substantial evidence.-If the DEIR had accurately relied upon the CalEEMod outputs that were given, it would have found an even larger quantity of GHG emissions.

Additionally, the vegetation section was missing entirely from the operational CalEEMod outputs. Removing all vegetation prevents reduces the ability for the land to act as a sink to sequester carbon and may even become a source of GHG emissions. CalEEMod Vegetation analysis also accounts for variation in soil type for carbon sequestration, so the types of vegetation that will remain

on the Project site during operation, if any, is important to include. The extent to which vegetation makes a difference in the quantification of GHG emissions should be known to the public and the decision-makers by including it in the CalEEMod report.

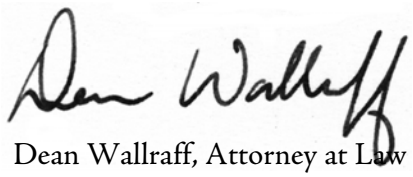
Conclusion

For the reasons given in this letter, the EIR is not in conformance with CEQA requirements. Notably, the significance analysis was incorrect, and the City should have concluded that the Project would contribute to a significant GHG impact because it is inconsistent with California's climate policy, including the 2022 Scoping Plan and Senate Bill 32, as well as the Livermore CAP that the Project inadequately analyzed.

The Final EIR did not include any modifications to address any GHG concerns as stated in this letter or other comments the City received. The City dismissed the suggestion to recirculate the DEIR based on many necessary changes including fixing erroneous CalEEMod runs—as determined by Soil/Water/Air Protection Enterprise (**SWAPE**), even though the current CalEEMod calculations have an impact on several areas of the DEIR, including air quality and GHG emissions.

Please put Advocates for the Environment on the interest list to receive notice about the progress of this Project. We make this request under Public Resources Code, section 21092.2.

Sincerely,



Dean Wallraff, Attorney at Law
Executive Director, Advocates for the Environment

VIA E-MAIL

February 14, 2024

Ashley Vera, Associate Planner
City of Livermore
1052 S. Livermore Avenue
Livermore, CA 94550
Em: Asvera@livermoreca.gov

RE: City of Livermore's SMP 39 and 40 Planning Commission Meeting

Dear Ashley Vera,

On behalf of "**Carpenters Local 713**", my Office is submitting these comments for the City of Livermore's ("**City**") Draft Environmental Impact Report ("**Draft EIR**" or "**DEIR**") and Final Environmental Impact Report ("**Final EIR**" or "**FEIR**") for the **February 20, 2024 Planning Commission Meeting** for the SMP 39 and 40 Project ("**Project**").

According to the Project's Notice of Availability ("**NOA**") of a Draft EIR Project Description:

> "On **SMP 38**, the proposed project includes a Sphere of Influence (SOI) Amendment to **include** SMP 38 within the **City of Livermore** SOI and **remove** it from the **City of Pleasanton's** SOI. The City of Livermore General Plan land use designation for SMP 38 would remain Limited Agriculture and Open Space/Sand and Gravel and the Alameda County zoning designation would remain Agriculture. **Development of SMP 38** is **not proposed**.
>
> For **SMP 39**, the proposed project would include development of a total of **up to six light industrial buildings**, consisting of **up to approximately 755,500 square feet** (sf) of new building space, and associated **internal roadways** and **other** improvements. **For SMP 40**, the proposed project would include development of **two industrial**

buildings containing up to **759,275 sf of new building space** with related **internal roadways** and **other** improvements. A number of approvals would be required for development of SMP 39 and SMP 40, including a **SOI Amendment for SMP 39**, **General Plan Amendment**, **Pre-zoning** and **Annexation**, **Zoning Map Amendment**/Planned Development, Vesting Tentative Subdivision **Maps**, a **Pre-Annexation Agreement**, and **Development Agreement**. A **Site Plan Design Review** entitlement is required for SMP 39 and SMP 40, which would include a review of the site plan, building, and landscape design; however, the entitlement is **only proposed for SMP 40 at this time**. A Site Plan Design Review entitlement will be required **at a later date** for the future development of **SMP 39**. In addition, the proposed project would include **annexation of four additional parcels** (APNs 904-10-2-3, -5, -7, and -8) located **east of SMP 40**. Development is **not proposed** on the additional parcels **as part** of the proposed project.

The project would include a **paved at-grade, on-site trail along the boundaries** of the SMP 40 site, consistent with the City's Active Transportation Plan. Specifically, the on-site trail would extend from the northeastern corner of the site, along the project site's eastern, southern, and western boundaries, before connecting to an existing off-site paved shared-use path at the northwestern corner of site, which extends along the west side of the Oaks Business Park to the north and connects to West Jack London Boulevard.

In addition, the project would include a **new off-site connection to the existing Arroyo Mocho Trail**, located on the east side of Isabel Avenue/SR 84. For the purposes of the Draft EIR analysis, three alternatives for the proposed off-site Isabel Avenue/SR 84 crossing to the existing Arroyo Mocho Trail are considered and evaluated in the Draft EIR, including the following, and described in more detail in the Draft EIR:

- Trail Connection Option 1 – **At-Grade** Crossing at **Discovery Drive**;
- Trail Connection Option 2 – **Undercrossing** at **Isabel** Bridge; and

- Trail Connection Option 3 – **Overcrossing** of **Isabel** Avenue/SR 84."

NOA of Draft EIR, pp. 1-2, emph. added.

The concurrently circulated Draft EIR contains the same project description. DEIR, pp. 1-2—1-4.

Carpenters Local 713 is a labor union representing union carpenters in Alameda County , and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects.

Local 713 members live, work, and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

Carpenters Local 713 expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

Carpenters Local 713 incorporates by reference all comments related to the Project or its CEQA review, including the Environmental Impact Report. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, Carpenters Local 713 requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT

The City should require the Project to be built using local workers who have graduated from a Joint Labor-Management Apprenticeship Program and make a commitment to hiring a local workforce.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

> voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 ("**AB2011**"). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts.

II. THE PROJECT WOULD BE APPROVED IN VIOLATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

A. Background Concerning the California Environmental Quality Act

The California Environmental Quality Act is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. 14 California Code of Regulations ("**CEQA Guidelines**"), § 15002, subd. (a)(1).[5] At its core, its purpose is to "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

1. Background Concerning Environmental Impact Reports

CEQA directs public agencies to avoid or reduce environmental damage, when possible, by requiring alternatives or mitigation measures. CEQA Guidelines, § 15002, subds. (a)(2)-(3); see also *Berkeley Keep Jets Over the Bay Committee v. Board of Port Comes* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *Laurel Heights Improvement Assn.*, 47 Cal.3d at p. 400. The EIR

[5] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 et seq., are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. Cal. Pub. Res. Code, § 21083. The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217.

serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA Guidelines, § 15002, subd. (a)(2). If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in Public Resources Code section 21081. See CEQA Guidelines, § 15092, subds. (b)(2)(A)-(B).

While the courts review an EIR using an 'abuse of discretion' standard, the reviewing court is not to *uncritically* rely on every study or analysis presented by a project proponent in support of its position. *Berkeley Jets*, 91 Cal.App.4th at p. 1355 (quoting *Laurel Heights Improvement Assn.*, 47 Cal.3d at pp. 391, 409 fn. 12) (internal quotations omitted). A clearly inadequate or unsupported study is entitled to no judicial deference. *Id.* Drawing this line and determining whether the EIR complies with CEQA's information disclosure requirements presents a question of law subject to independent review by the courts. *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131. As the court stated in *Berkeley Jets*, prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process. 91 Cal.App.4th at p. 1355 (internal quotations omitted).

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450). The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. *Id.* For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Id.*

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "fair argument" standard under which an EIR must be prepared whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602; *Friends of "B" St.* v. *City of Hayward* (1980) 106 Cal.3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." PRC, § 21151; see *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75; accord *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884. Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. PRC, §§ 21100 (a), 21151; CEQA Guidelines, § 15064 (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the agency must adopt a negative declaration. PRC, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063 (b)(2), 15064(f)(3).

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." PRC, § 21068; CEQA Guidelines, § 15382. A project may have a significant effect on the environment if there is a reasonable probability that it will result in a significant impact. *No Oil, Inc.*, 13 Cal.3d at p. 83 fn. 16; see *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309. If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063(b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrigation Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom*, 202 Cal.App.3d at p. 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR

even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen,* 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491; *Friends of "B" St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064(f)(1).

B. The Project May Have a Significant Impact on Biological Resources

There is substantial evidence the Project will have a significant impact on biological resources. As discussed in further detail in a comment letter from biological resources expert Shawn Smallwood, PhD with regards to the proposed Project, incorporated by reference herein, "the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, interference with wildlife movement, and wildlife-automobile collision mortality." (See **Exhibit D** [December 12, 2023 comment letter from Shawn Smallwood, PhD regarding SMP 38, SMP 39, and SMP 40 biological resources analysis].)

First, for example, with regards to the potential for habitat loss, Dr. Smallwood predicts:

> SMP 38 (111.7 acres), SMP 39 (51.9 acres) and SMP 40 (41 acres) support 11.4 bird nests/acre/year. Based on this assumption, the combined projects, SMP 39 and SMP 40, on 92.9 acres would eliminate 1,059 nest sites, and assuming SMP 38 is also later developed, then the combined projects, SMP 38, SMP 39, ad SMP 40, on 204.6 would eliminate 2,332 nest sites.

(**Exhibit D**, p. 28.)

Accordingly, Dr. Smallwood points out that this loss in nest sites would constitute a significant impact from the Project that was not quantitatively addressed in the Draft EIR. (**Exhibit D**, p. 28.) Further, Dr. Smallwood notes that the loss in nests would lead to a loss in the reproductive capacity of the site, thus decreasing the number of birds at the Site over time. (*Id.*)

Second, Dr. Smallwood discusses the Projects impacts on interference with wildlife movement, highlighting that the DEIR's analysis of whether the Project will interfere with wildlife movement in the Project Site area is "flawed and misleading." (**Exhibit D**, p. 29.) Specifically, Dr. Smallwood states that:

> According to the DEIR, "The project area does not fall within an Essential Habitat Connectivity area mapped by the CDFW." However, at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18486, the California Essential Habitat Connectivity Project specifically points out that it is not: "A California Department of Fish and Game or US Fish and Wildlife Service response to potential impacts to a habitat or species from a project subject to the California Environmental Quality Act (CEQA)," nor "Fine scale, with every important piece of habitat identified" nor ""Essential", meaning the only places of importance" nor "A solution by itself for how to provide necessary linkages for any given species of plant or animal... Linkage designs will vary depending on focal species chosen and the goal of providing connected habitat for a chosen species might be met several different ways" nor "The final word on connectivity for California." With analytical grid cells of 2,000 acres, the spatial grain of the California Essential Habitat Connectivity Project is much too coarse for the conclusion the DEIR draws from it.

(**Exhibit D**, p. 29.)

Moreover, Dr. Smallwood points out that the DEIR contains a flawed "argument that SMP 39 is cut off from open areas by well-trafficked roads, the airport, the gravel quarries, and therefore cannot function as a wildlife movement corridor" and notes that the same argument is used for SMP 40. (*Id.*) However, as Dr. Smallwood notes, the DEIR simply uses speculation here and provides no supporting evidence to this assertion. (*Id.*)

Third, Dr. Smallwood discusses the Project's traffic impacts to wildlife, noting that traffic generated from the Project will endanger wildlife that must cross roads used by traffic getting to and from the Project Site. (**Exhibit D**, p. 30.) Dr. Smallwood discusses traffic-caused wildlife mortality and highlights various traffic mortality numbers collected from a wildlife mortality study performed only eleven (11) miles from the Project Site in the County of Contra Costa. (*Id.*) Dr. Smallwood concludes an analysis should be done on "whether increased traffic generated by the project site would similarly result in local impacts on wildlife." (*Id.* at p. 31.)

In addition, the biological impact analysis of the EIR is legally flawed for the following reasons.

First, the DEIR's biological resources impact analysis relies on multiple inadequate biological field surveys outlined in Appendices D and E of the DEIR prepared by Monk & Associates that are described in insufficient detail.

For example, with regards to the field surveys, the DEIR states that:

> "SMP 39 and SMP 40 were both first surveyed in 2000, with follow-up surveys over the years, including in November 2013, for various development proposals. In addition, a **project-specific field survey** was conducted on SMP 39 on **October 14, 2021**, and on SMP 40 on **June 10, 2019** to record biological resources within the sites, and to assess the likelihood of resource agency regulated areas to be located within the sites. An **additional survey** was conducted for SMP 40 on **June 21, 2019** to flag the Arroyo Mocho's riparian drip line to allow for the project engineers to survey the limits of the riparian vegetation and overlay the area on the project site plan, and **another general survey** of SMP 40 was conducted on **September 10, 2021.**"

DEIR, p. 4.3-24. [Emphasis added.']

However, the DEIR's reliance on these biological resources field surveys is improper for several reasons.

First, the DEIR and its accompanying Appendices D and E leave out crucial information about the site surveys.

In summarizing the various site surveys that occurred in 2013, 2019, and 2021, DEIR Appendix D's Biological Resources Analysis ("**SMP-39 BRA**") states that "[e]ach site survey involved searching all habitats on the site and recording all plant and wildlife species observed. . . ." and that the "evaluation included an examination of the site to determine if there could be potential areas within the project site that would be regulated as waters of the United States and/or State . . ." DEIR Appendix D, p. 2. Thus, the SMP-39 BRA field surveys seem to indicate that visual inspections were done during these site visits. However, SMP-39 BRA is insufficient for numerous reasons as it leaves out crucial information about the site surveys while relying on the surveys to form conclusions about the Project's potential biological resources impacts.

As a preliminary matter, *one* (1) single field survey alone for just the SMP-39 Project Site is insufficient to adequately identify all of the potential habitats and plant and wildlife species occurring within the Project Site, as the site surveys purport to have

looked for. In the City's Final EIR Responses to Comments, Response No. 5-12, the City counters our office's prior comment that "[o]ne single field survey is sufficient to get a baseline description of a project site's pant communities and wildlife habitats and to determine if additional surveys for special-status species are necessary." (FEIR Response to Comments, p. 2-75.) However, as Dr. Smallwood notes in his comment letter on the Project, "[m]ore surveys are needed than my two surveys [sic] to inventory use of the project site by wildlife" (**Exhibit D**, pp. 14-15), that the appropriate detection surveys have not been completed at SMP 39 and SMP 40," (*id.* at p. 17), that "[r]econnaissance surveys for wildlife are not designed to detect special-status species" indicating that protocol-level detection surveys are appropriate but that Monk & Associates did not perform such detection surveys here, thus rendering the Draft EIR's "characterization of the existing environmental setting . . . therefore incomplete and inaccurate." (*Id.* at p. 19.) Therefore, it is clear that the single survey conducted for SMP-39 is inadequate.

Moreover, the SMP-39 BRA does not specify what time of the day the surveys were conducted during, (DEIR Appendix D, p. 2) which, again, leaves open the possibility that certain species, for example, nocturnal species, could present themselves at different times of the day. This is further highlighted in Dr. Smallwood's comment letter, where he notes that:

> For none of the above surveys was there reporting of what time the surveys began, or how long the surveys lasted. No checklist is shared of habitat elements that the biologists might have used during their survey to later crosscheck against documented habitats of each special-status species. No explanation is provided of whether or how animal behavior data or other evidence contributed to the biologist's assessment of the site for its importance to animal movement. It is therefore difficult to assess survey outcomes relative to survey effort and methods.

(**Exhibit D**, p. 16.)

Even further, in one (1) single survey, the surveyor may fail to identify species that would only present themselves during certain times of the *year*. According to the SMP-39 BRA in Appendix D, for example, the most recent surveys were conducted in June 2019 (a summer month) and October 2021 (a fall month), while failing to account for the spring and winter months. DEIR Appendix D, p. 2. However, there may be certain plant or animal species that would not be identifiable to an observer during the summer or fall months but that could nevertheless be present at the

Project Site and be identifiable during other seasons of the year. For example, and as noted by Dr. Smallwood, in response to the DEIR's assertion that no special-status plants were observed during some of the surveys at the Project Sites during various months over the years, Dr. Smallwood responds that this reporting is misleading "because only one of the several surveys was conducted during the plant blooming season. Monk and Associates (2021, 2023) did not meet the minimum standards of [California Department of Fish and Wildlife's ("**CDFW**")] (2018) plant survey guidelines. While the FEIR's Responses to Comments counters our office's prior comments, asserting that the CDFW's survey guidelines cited are guidelines for conducting floristic surveys for rare and endangered or other special-status species, the site surveys still failed to meet the CDFW's minimum plant survey guidelines standards. Thus, new surveys must be conducted that meet these standards.

Therefore, the DEIR's reliance on surveys not in compliance with California Department of Fish and Wildlife's survey guidelines[6] and its misuse of the California Natural Diversity Database ("**CNDD**") resulted in potentially inaccurate determinations. For example, with regards to botanical field surveys, the CDFW's survey guidelines state that such field surveys should be conducted in a way that will maximize the likelihood of identifying special status plants and sensitive natural communities that may be present at a site.[7] Specifically, the guidelines state that "[m]ore than one field visit is usually necessary to adequately capture the floristic diversity of a project area."[8]

For each of the foregoing reasons, the Project may have a significant impact on biological resources. Accordingly, the DEIR's findings as to the Project's biological impacts are not supported with substantial evidence that is of verifiable or credible value and the DEIR must be revised and recirculated to reassess those impacts, including on the wildlife species with potential to occur on the Project Site using protocol-level detection surveys and describing those surveys with sufficient detail.

[6] *See*, California Natural Resources Agency, *Department of Fish and Wildlife Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities, available at* https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline, pp. 4, 5-6, accessed on Oct. 9, 2023), updated on Feb. 3, 2023; *see generally* California Department of Fish and Wildlife California Natural Diversity Database, *available at* https://wildlife.ca.gov/Data/CNDDB/Plants-and-Animals (last visited on Oct. 9, 2023.)

[7] California Natural Resources Agency, *supra*, at p. 4.

[8] *Id.*

C. The Project May Have Significant Noise Impacts.

There is substantial evidence that the Project will have significant traffic impacts. As discussed by Principal Steve Rogers of Steve Rogers Acoustics, "the evaluation of noise impacts during the construction phases is incomplete and contains a significant calculation error." (**Exhibit E**, p. 3 [December 12, 2023 comment letter re City of Livermore SMP 38/SMP 39/SMP 40 Project Review of DEIR Noise Section & Appendices]), fully incorporated herein.

First, as noted by Mr. Rogers for the DEIR's construction noise impacts, the DEIR concludes there will be a less than significant impact for on-site construction, but per the DEIR's analysis, the DEIR fails to adequately support this conclusion for multiple reasons. (**Exhibit E**, p. 2.) For example, the DEIR fails to include SMP 39's construction noise impacts in its section 4.6 analysis. (*Id.*) Second, Mr. Rogers notes that the noise analysis for SMP 40 is incomplete. Specifically,

> The noise impact analysis for construction on the SMP 40 site compares Salter's noise level predictions with instantaneous maximum noise level (Lmax) limits of 70 dBA during the day and 60 dBA at night, which are taken from Policy N-1.5.P3 of the City of Livermore General Plan.
>
> However, these Lmax noise limits are not the only local regulations that would apply to construction noise on the SMP 40 site.
>
> . . .
>
> Similarly, the DEIR does not include an DNL analysis for construction noise from SMP 40 to show that it will be below the 60 dBA exterior noise standard taken from land-use compatibility table (Table 9-7) in the General Plan. This will be particularly important if any construction work is to occur at night.

(**Exhibit E**, pp. 2-3.)

Third, Mr. Rogers highlights that there was an error in the calculations for SMP 40 with regards to various construction equipment pieces at a 50-foot distance. (*Id.*) Lastly, Mr. Rogers states that the construction noise analysis on the east side of the SMP 40 site is overlooked, as it assumes receivers 884 feet away from the equipment, while during other phases of construction, the noisy equipment may be operating closer than 884-feet from nearby residential uses. (*Id.*)

For each of the foregoing reasons, the Project may have a significant noise impact and the EIR should therefore be revised and recirculated.

III. **CONCLUSION**

Based on the foregoing, the City should deny the Project's proposed entitlements and require that the Environmental Impact Report be revised and recirculated pursuant to CEQA, consistent with the comments and issues identified in this comment letter.

Sincerely,

Stephanie Papayanis

Stephanie Papayanis
Attorneys for Carpenters Local 713

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B);

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C);

December 12, 2023 Comment Letter from Biological Resources Expert regarding SMP 38, SMP 39, and SMP 40 Project (Exhibit D); and

December 12, 2023 Comment Letter from Noise Expert Steve Rogers regarding Review of DEIR Noise Section an Appendices (Exhibit E).

EXHIBIT A

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

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

EXHIBIT E

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6826**	**1,721.6826**	**0.1294**	**0.0000**	**1,724.9187**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6823**	**1,721.6823**	**0.1294**	**0.0000**	**1,724.9183**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4103	1.4103
2	**12-1-2021**	**2-28-2022**	1.3613	1.3613
3	**3-1-2022**	**5-31-2022**	1.1985	1.1985
4	**6-1-2022**	**8-31-2022**	1.1921	1.1921
5	**9-1-2022**	**11-30-2022**	1.1918	1.1918
6	**12-1-2022**	**2-28-2023**	1.0774	1.0774
7	**3-1-2023**	**5-31-2023**	1.0320	1.0320
8	**6-1-2023**	**8-31-2023**	1.0260	1.0260

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	2.8857	2.8857
11	**3-1-2024**	**5-31-2024**	1.6207	1.6207
		Highest	2.8857	2.8857

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6554**	**1,418.6554**	**0.1215**	**0.0000**	**1,421.6925**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6550**	**1,418.6550**	**0.1215**	**0.0000**	**1,421.6921**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4091	1.4091
2	**12-1-2021**	**2-28-2022**	1.3329	1.3329
3	**3-1-2022**	**5-31-2022**	1.1499	1.1499
4	**6-1-2022**	**8-31-2022**	1.1457	1.1457
5	**9-1-2022**	**11-30-2022**	1.1415	1.1415
6	**12-1-2022**	**2-28-2023**	1.0278	1.0278
7	**3-1-2023**	**5-31-2023**	0.9868	0.9868
8	**6-1-2023**	**8-31-2023**	0.9831	0.9831

9	**9-1-2023**	**11-30-2023**	0.9798	0.9798
10	**12-1-2023**	**2-29-2024**	2.8757	2.8757
11	**3-1-2024**	**5-31-2024**	1.6188	1.6188
		Highest	2.8757	2.8757

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

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

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

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Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

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

1640 5th St.., Suite 204 Santa
Santa Monica, California 90401
Tel: (949) 887-9013
Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Ashley Vera, Senior Planner
City of Livermore
Community Development Department
1052 S. Livermore Avenue
Livermore, CA 94550

12 December 2023

RE: SMP 38, SMP 39. SMP 40

Dear Ms. Vera,

I write to comment on potential impacts to biological resources that could result from the proposed SMP 38, SMP 39. SMP 40 Project, which I understand would add 1,514,275 square feet of floor space in eight speculative industrial buildings up to 55 feet tall on 217.04 acres located on APNs) 904-1-7-21; 904-1-2-12; 904-1-7-32; 904-3-1-4; 904-10-2-2, -3, -5, -7, and -8 west of Isabel Avenue, north of Stanley Boulevard, south of West Jack London Boulevard, and east of El Charro Road. I comment on the analyses of impacts to biological resources in the DEIR and in Monk & Associates (2021).

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, wildlife interactions with the anthrosphere, and conservation of rare and endangered species. I authored many papers on these and other topics. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I've lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-seven years. My CV is attached.

SITE VISIT

I visited the SMP 40 for 2.22 hours from 14:43 to 16:35 hours on 28 November 2023, and SMP 38 and SMP 39 for 2.83 hours from 06:45 to 09:35 hours on 29 November 2023. At SMP 40, I surveyed from a cul-du-sac on the north edge of the site. At SMP 38 and SMP 39, I walked the northern perimeters, stopping to scan for wildlife with use of binoculars. I recorded all species of vertebrate wildlife I detected, including those whose members flew over the sites or were seen nearby, off the sites. Animals of uncertain species identity were either omitted or, if possible, recorded to the Genus or higher taxonomic level.

Conditions were mostly cloudy still with temperatures of 62-55° F on the 28th and 46-50° F on the 29th. The sites have been previously disked, and at the time of the surveys they were covered by annual grasses and ruderal vegetation (Photos 1—2).

Photos 1–2. Views of SMP 40 (top) and SMP 39 with a flock of Canada goose (bottom), 28-29 November 2023.

I detected 46 species of vertebrate wildlife at or adjacent to the project site, including 10 species with special status (Table 1). I saw Botta's pocket gopher (Photo 3) and California ground squirrel (Photo 4), both species of which are ecological keystone species. I saw loggerhead shrike (Photo 5), Cooper's hawk and American kestrel (Photos 6 and 7), western meadowlark (Photo 8), house finch and killdeer (Photos 9 and 10), black phoebe and white-crowned sparrow (Photos 11 and 12), mourning dove (Photo 13), Say's phoebe and yellow-rumped warbler (Photos 14 and 15), savannah sparrow (Photo 16), and lesser goldfinch and bushtit (Photos 17 and 18), among the other species listed in Table 1. Many of the species actively foraged on the site, including coyote, Cooper's hawk, red-tailed hawk, horned lark, Canada goose and Aleutian cackling goose, killdeer, western meadowlark, house finch and others. I observed Some species in high abundance, including western meadowlark and mourning dove. California ground squirrels occupied all three sites, but were particularly abundant on SMP 40.

Table 1. Species of wildlife I observed during 5.05 hours of survey on 28-29 November 2023.

Common name	*Species name*	Status[1]	Notes	SMP			Just offsite
				38	39	40	
Sierran treefrog	*Pseudacris regilla*		Calling	X	X		
Cackling goose	*Branta hutchinsii*	TWL	Foraging	X	X		X
Canada goose	*Branta canadensis*		Foraging	X	X		X
Mallard	*Anas platyrhynchos*		Flyover	X	X	X	X
Mourning dove	*Zenaida macroura*		Many	X	X	X	X
Killdeer	*Charadrius vociferus*		Foraging	X	X	X	
Short-billed gull	*Larus brachyrhynchus*		Flyover			X	
Ring-billed gull	*Larus delawarensis*		Flyover	X	X	X	
California gull	*Larus californicus*	BCC, TWL	Flyover	X	X	X	
Herring gull	*Larus argentatus*		Flyover			X	
Glaucous-winged gull	*Larus glaucescens*		Flyover		X	X	
Double-crested cormorant	*Nannopterum auritum*	TWL	Flyover		X		X
Great blue heron	*Ardea herodias*		Flyover		X		X
Turkey vulture	*Cathartes aura*	BOP	Foraging		X	X	
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP	SMP 39		X		
Cooper's hawk	*Accipiter cooperii*	TWL, BOP	Perched at airport, foraged project site		X		X
Red-tailed hawk	*Buteo jamaicensis*	BOP		X	X	X	X
Hairy woodpecker	*Dryobates villosus*		Flyover	X			X
Northern flicker	*Colaptes auratus*		SMP 40			X	
American kestrel	*Falco sparverius*	BOP		X	X	X	
Black phoebe	*Sayornis nigricans*			X	X	X	X
Say's phoebe	*Sayornis saya*		SMP 39		X		
Loggerhead shrike	*Lanius ludovicianus*	SSC2	SMP 39		X		
California scrub-jay	*Aphelocoma californica*					X	X
American crow	*Corvus brachyrhynchos*			X	X	X	X
Common raven	*Corvus corax*			X	X	X	X
California horned lark	*Eremophila alpestris actia*	TWL	Foraging			X	
Violet-green swallow	*Tachycineta thalassina*		SMP 40			X	X

Common name	*Species name*	Status[1]	Notes	SMP			Just offsite
				38	39	40	
Bushtit	*Psaltriparus minimus*		Just offsite				X
Northern mockingbird	*Mimus polyglottos*				X	X	X
European starling	*Sturnus vulgaris*	Non-native		X	X	X	X
American pipit	*Anthus rubescens*		Foraging		X		
House finch	*Haemorphous mexicanus*				X	X	X
Lesser goldfinch	*Spinus psaltria*		Just offsite				X
Lawrence's goldfinch	*Spinus lawrencei*	BCC	SMP 40			X	
White-crowned sparrow	*Zonotrichia leucophrys*				X	X	X
Savannah sparrow	*Passerculus sandwichensis*		SMP 38, SMP 39		X		
Lincoln's sparrow	*Melospiza lincolnii*		SMP 38		X		X
California towhee	*Melozone crissalis*				X		X
Western meadowlark	*Sturnella neglecta*		Many	X	X	X	X
Red-winged blackbird	*Agelaius phoeniceus*					X	
Brown-headed cowbird	*Molothrus ater*					X	
Yellow-rumped warbler	*Setophaga coronata*			X	X	X	X
Desert cottontail	*Sylvilagus audubonii*		SMP 38				X
California ground squirrel	*Otospermophilus beecheyi*		Many	X	X	X	X
Coyote	*Canis latrans*		SMP 39		X		
Botta's pocket gopher	*Thomomys bottae*		Burrows		X		X

[1] Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

Photo 3. Botta's pocket gopher mounds on the project site, 29 November 2023.

Photo 4. California ground squirrels on the SMP 40 portion of the project site, 28 November 2023.

Photo 5. Loggerhead shrike on the SMP 39 portion of the project site, 29 November 2023.

Photos 6 and 7. Cooper's hawk (L) and American kestrel (R) at the project site, 29 November 2023.

Photo 8. One of many western meadowlarks foraging on the SMP 39 portion of the project site, 29 November 2023.

Photos 9 and 10. House finches (top) and one of many killdeer (bottom) on the project site, 28-29 November 2023.

Photos 11 and 12. Black phoebe (L) and white-crowned sparrow (R) on the project site, 28-29 November 2023.

Photo 13. One of many mourning doves foraging on the SMP 39 portion of the project site, 29 November 2023.

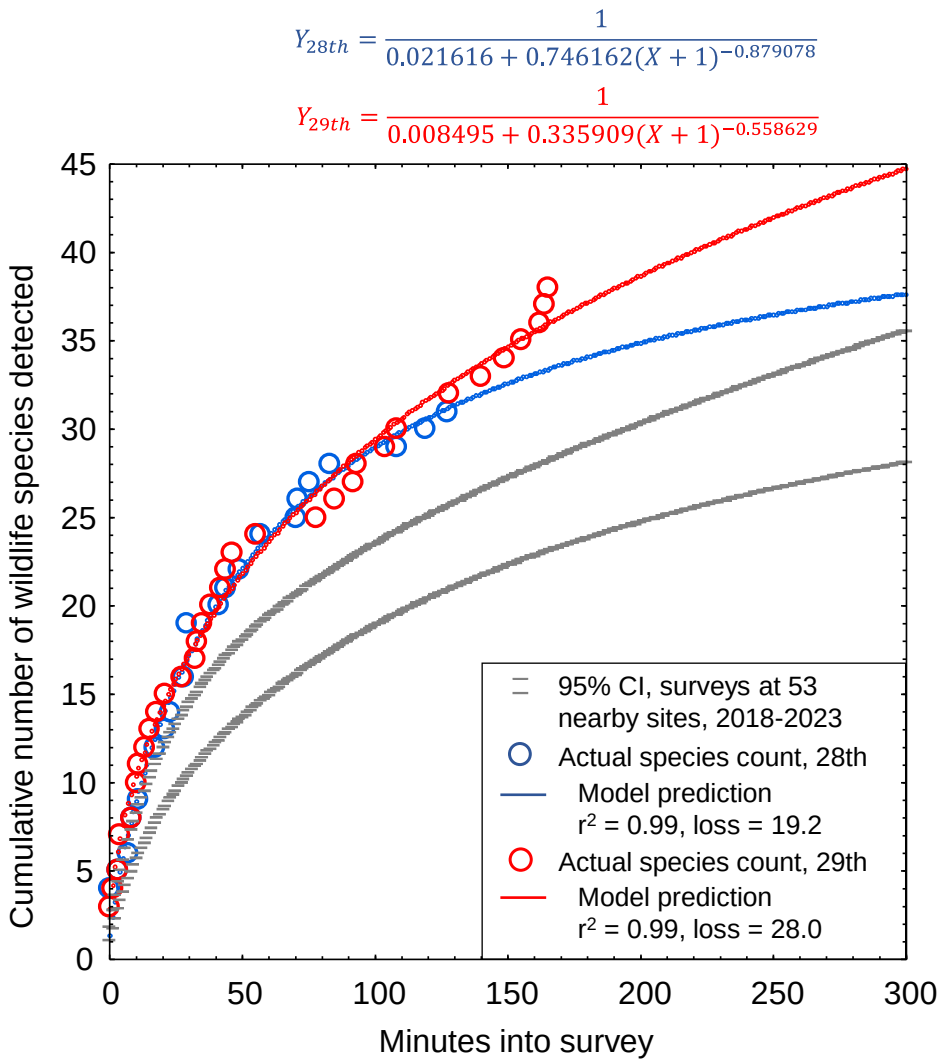
Photos 14 and 15. Say's phoebe (top) and yellow-rumped warbler (bottom) on the project site, 28-29 November 2023.

Photo 16. Savannah sparrow on the SMP 39 portion of the project site, 29 November 2023.

Photos 17 and 18. Lesser goldfinch (L) and bushtit (R) just off the project site, 29 November 2023.

I fit nonlinear regression models to the cumulative numbers of vertebrate species I detected with time into my surveys to predict the number of species that I would have detected with a longer survey or perhaps with additional biologists available to assist. The models are logistic growth models which reach asymptotes that correspond with the maximum numbers of vertebrate wildlife species that could have been detected during each survey. In this case, the models predict 46 and 118 species of vertebrate wildlife were available to be detected on the evening of the 28th and the morning of the 29th, respectively, the difference likely due to the onset of darkness during the evening survey of the 28th. Compared to models fit to data I collected from 18 other sites in the region between 2019 and 2023, the data from this project site exceeds the upper bound of the 95% confidence interval of the rate of accumulated species detections with time into the survey (Figure 1). Importantly, however, the species I detected on November 28-29 composed only a fraction of the species that would occur at the project site over the period of a year or longer. This is because many species are seasonal in their occurrence.

Figure 1. Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on visual-scan surveys on 28-29 November 2023. Note that the relationships would differ if the surveys were based on another method or during another season.



At least a year's worth of surveys would be needed to more accurately report the number of vertebrate species that occur at the project site, but I only have Noriko's one survey. However, by use of an analytical bridge, a modeling effort applied to a large, robust data set from a research site can predict the number of vertebrate wildlife species that likely make use of the site over the longer term. As part of my research, I completed a much larger survey effort across 167 km² of annual grasslands of the Altamont Pass Wind Resource Area, where from 2015 through 2019 I performed 721 1-hour visual-scan surveys, or 721 hours of surveys, at 46 stations. I used binoculars and otherwise the methods were the same as the methods I and other consulting biologists use for surveys at proposed project sites. At each of the 46 survey stations, I tallied new species detected with each sequential survey at that station, and then related the cumulative species detected to the hours (number of surveys, as each survey lasted 1 hour) used to accumulate my counts of species detected. I used combined quadratic and simplex methods of estimation in Statistica to estimate least-squares, best-fit nonlinear models of the number of cumulative species detected regressed on hours of survey (number of surveys) at the station: $\hat{R} = \frac{1}{1/a+b\times(Hours)^c}$, where $\hat{R}$ represented cumulative species

richness detected. The coefficients of determination, r^2, of the models ranged 0.88 to 1.00, with a mean of 0.97 (95% CI: 0.96, 0.98); or in other words, the models were excellent fits to the data.

I projected the predictions of each model to thousands of hours to find predicted asymptotes of wildlife species richness. The mean model-predicted asymptote of species richness was 57 after 11,857 hours of visual-scan surveys among the 46 stations of my research site. I also averaged model predictions of species richness at each incremental increase of number of surveys, i.e., number of hours (Figure 2). On average I would have detected 17.5 species over my first 5.05 hours of surveys at my research site in the Altamont Pass (5.05 hours to match the 5.05 hours I surveyed at the project site), which composed 30.7% of the predicted total number of species I would detect with a much larger survey effort at the research site. Given the example illustrated in Figure 2, the 46 species I detected after my 5.05 hours of survey at the project site likely represented 30.7% of the species to be detected after many more visual-scan surveys over another year or longer. With many more repeat surveys through the year, I would likely detect $^{46}/_{0.307} = 150$ species of vertebrate wildlife at the site. Assuming my ratio of special-status to non-special-status species was to hold through the detections of all 150 predicted species, then continued surveys would eventually detect 33 special-status species of vertebrate wildlife.

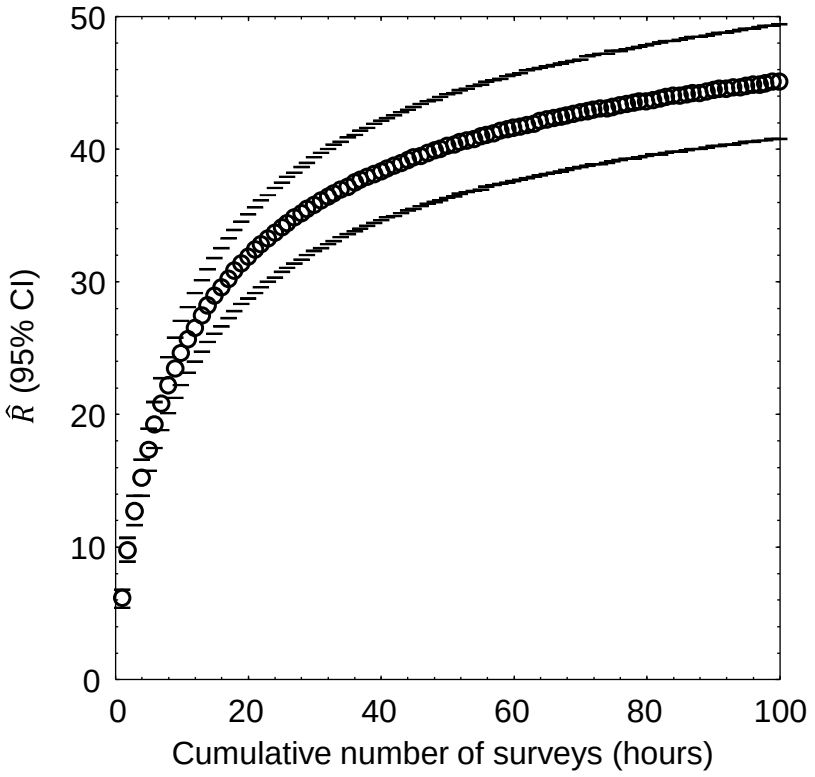


Figure 2. Mean (95% CI) predicted wildlife species richness, $\hat{R}$, as a nonlinear function of hour-long survey increments across 46 visual-scan survey stations across the Altamont Pass Wind Resource Area, Alameda and Contra Costa Counties, 2015–2019. Note that the location of the study is largely irrelevant to the utility of the graph to the interpretation of survey outcomes at the project site. It is the pattern in the data that is relevant, because the pattern is typical of the pattern seen elsewhere.

Because my prediction of 150 species of vertebrate wildlife, including 33 special-status species of vertebrate wildlife, is derived from daytime visual-scan surveys, and would detect few nocturnal mammals such as bats, the true number of species composing the wildlife community of the site must be larger. My reconnaissance surveys should serve

only as a starting point toward characterization of the site's wildlife community, but they certainly cannot alone inform of the inventory of species that use the site. More surveys are needed than my two survey to inventory use of the project site by wildlife. Nevertheless, the large number of species I predict at the project site is indicative of a relatively species-rich wildlife community that warrants a serious survey effort.

EXISTING ENVIRNMENTAL SETTING

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the biological species that use the site, their relative abundances, how they use the site, key ecological relationships, and known and ongoing threats to those species with special status. A reasonably accurate characterization of the environmental setting can provide the basis for determining whether the site holds habitat value to wildlife, as well as a baseline against which to analyze potential project impacts. For these reasons, characterization of the environmental setting, including the project site's regional setting, is one of CEQA's essential analytical steps. Methods to achieve this first step typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases and local experts for documented occurrences of special-status species. In the case of the proposed project, these needed steps have been inadequate.

Environmental Setting informed by Field Surveys

To CEQA's primary objective to disclose potential environmental impacts of a proposed project, the analysis should be informed of which biological species are known to occur at the proposed project site, which special-status species are likely to occur, as well as the limitations of the survey effort directed to the site. Analysts need this information to characterize the environmental setting as a basis for opining on, or predicting, potential project impacts to biological resources.

Herein I discuss several types of surveys, which are common to environmental review, but which are often misunderstood and misapplied. A *reconnaissance survey*, also often referred to as a general biological survey, is intended to (1) detect as many of the species as feasible during the time of the survey, (2) search for and map the locations of approximate boundaries of wetlands and coarse representations of vegetation cover, and (3) assess the likelihood of occurrences of special-status species. The latter objective is often referred to as habitat assessment. CDFW (2018) provides guidelines for reconnaissance surveys directed toward plant species, but there are no guidelines for reconnaissance-level wildlife surveys, other than the expected use of sound scientific methodology. A *protocol-level survey* is a survey guided by a written protocol, usually by a resource agency or professional group of biologists. Such surveys can be for various objectives, but in environmental review they are usually intended for detection surveys. *Detection surveys* are formulated by experts on a particular species to, at reasonable cost, give survey personnel the best chance at detecting members of a species if the species is indeed present. The additional purpose of detection surveys is to support absence determinations when the protocol was followed but the species was nevertheless not detected. Absence determinations made for special-status species are

supportable only if the results of detection surveys were negative, or when the site is outside the species' geographic range or clearly does not provide habitat.

Preconstruction surveys are take-avoidance surveys intended to be completed after reconnaissance surveys and detection surveys and just prior to construction ground-disturbance activities such as clearing and grubbing or grading. For some species, protocols for preconstruction surveys are included in mitigation guidelines. The preconstruction survey is a mitigation measure, and therefore not to be confused with other types of surveys. This type of survey will be discussed in the Mitigation section near the end of my comments.

Monk & Associates (2021) performed a reconnaissance survey of the SMP 39 project site on 5 November 2021 "to record biological resources and to assess the likelihood of resource agency regulated areas occurring on the project site," and "searching all habitats on the site and recording all plant and wildlife species observed," and "examination of the site to determine if there could be potential areas within the project site that would be regulated as waters of the United States and/or State." Monk & Associates (2023) performed two reconnaissance surveys of the SMP 40 project site on 10 June 2019 and 10 September 2021. The objectives of the surveys at SMP 40 were essentially the same as those for the survey of SMP 39. In all three of these surveys, Monk & Associates recorded all the species observed. A wetland delineation was alco completed at SMP 40.

For none of the above surveys was there reporting of what time the surveys began, or how long the surveys lasted. No checklist is shared of habitat elements that the biologists might have used during their survey to later crosscheck against documented habitats of each special-status species. No explanation is provided of whether or how animal behavior data or other evidence contributed to the biologist's assessment of the site for its importance to animal movement. It is therefore difficult to assess survey outcomes relative to survey effort and methods.

Monk & Associates (2021) detected 14 species of vertebrate wildlife on SMP 39, and Monk & Associates (2023) detected 22 species of vertebrate wildlife on SMP 40. In comparison, and even though I was unable to access either of the project sites, I detected 34 species in only 1.83 hours at SMP 39, and 29 species in only 2.22 hours at SMP 40. I also detected twice the number of special-status species at SMP 39 and 1.5 times the number of special-status species at SMP 40. Based on my surveys of the project sites, the existing environmental setting of each appears substantially different from the setting characterized by Monk & Associates (2021, 2023). Considering the differences between what Monk & Associates and what I found, I suggest that Monk & Associates must have either been distracted by other too many survey objectives, or lacked the skill needed to perform the surveys. The results of the Monk and Associates (2021, 2023) surveys have been misinterpreted in the reports, resulting in inaccurate characterizations of the existing environmental settings of SMP 39 and SMP 40.

Combining my survey results with those of Monk & Associates (2021, 2023), 38 species of vertebrate wildlife have been detected at SMP 39, and 44 species have been detected

at SMP 40. These combined results increase the documented number of species at SMP 39 by nearly 3-fold and they double the number of species at SMP 40. In other words, the combined survey outcomes support my modeling predictions of much larger numbers of species of wildlife making use of the project sites than can be demonstrated by one or two reconnaissance surveys. My modeling predicts at least 150 species of vertebrate wildlife make use of the two sites, and this prediction was based solely on diurnal visual-scan surveys, and not on live-trapping for small mammals and nocturnal surveys for nocturnally active animals. The wildlife communities of SMP 39 and SMP 40 are much richer than portrayed in the DEIR.

The DEIR (page 4.3-25) reports that "western burrowing owls have not been observed within SMP 39 or SMP 40." This is factually incorrect, as CNDDB includes a record of burrowing owl occurrence on SMP 39 (Monk & Associates 2023: Figure 4). Even if this reporting was correct, it would still qualify as pseudoscientific. The appropriate surveys for detecting burrowing owls are detailed in the survey guidelines of CDFW (2012). Lack of detections of burrowing owls during reconnaissance surveys would be meaningful only after completion of many reconnaissance surveys at the appropriate time of year and by qualified biologists. Considering that ground squirrels occur in abundance on SMP 39 and SMP 40, and considering that one of California's most significant populations of burrowing owls occurs within the nearby Altamont Pass (Smallwood et al. 2013), and considering that the appropriate detection surveys have not been completed at SMP 39 and SMP 40, it would be prudent to assume that burrowing owls occur on the project sites.

Regarding tricolored blackbird, the DEIR (page 4.3-26) reports that "the species has not been observed near SMP 39 in nearly 40 years." This is factually incorrect, as eBird includes a 2003 record of tricolored blackbird occurrence only 300 m north of SMP 39. The DEIR also reports that tricolored blackbird would not occur on SMP 9 because "aquatic habitat does not exist within SMP 39." But this is also factually incorrect. I have many times recorded tricolored blackbird occurrences on grasslands of the Altamont Pass far from bodies of water (Photos 19 and 20). Grassland environments is where tricolored blackbirds do most of their foraging in Alameda County, and it is where they sometimes nest within the Altamont Pass (Photo 20).

The DEIR reports that loggerhead shrikes do not occur on SMP 39. But again, the DEIR is factually inaccurate. I observed a loggerhead shrike on SMP 39 (Photo 21), which as it turned out, was near where a loggerhead shrike sighting was also reported to eBird in 2018. Loggerhead shrike does occur on SMP 39, as well as on SMP 40.

The DEIR reports that SMP 39 and SMP 40 contains potential habitat of raptors. However, the word "potential" insinuates uncertainty remains on the question of whether the sites provide raptor habitat. Of course, they do. Those portions of the environment used by raptors are considered raptor habitat. Between my surveys and those of Monk & Associates, and including CNDDB and eBird records, the following raptors have been seen on SMP 39 and SMP 40: turkey vulture, northern harrier, white-tailed kite, red-tailed hawk, ferruginous hawk, Cooper's hawk, American kestrel, merlin,

and burrowing owl. There should be no ambiguity around the question of whether raptor habitat occurs on SMP 39 and SMP 40; raptor habitat is present.

Photos 19 and 20. Top, tricolored blackbirds forage on grassland far from aquatic environments, and bottom, they breed on rapeseed and thistle in the Altamont Pass Wind Resource Area.

Photo 21. Loggerhead shrike on the SMP 39 portion of the project site, 29 November 2023.

Reconnaissance surveys for wildlife are not designed to detect special-status species. Special-status species can be detected during such surveys, as has been the case for 10 special-status species at the project site, but these surveys are not formulated to detect them, nor are there minimum standards to be met in these surveys to support absence determinations. For the latter purpose, protocol-level detection surveys have been formulated by species experts. Monk & Associates (2021, 2023) did not perform any detection surveys. Based on Monk & Associates (2021, 2023), the DEIR's characterization of the existing environmental setting is therefore incomplete and inaccurate.

The same is true for special-status species of plants. According to the DEIR (page 4.3-25), "special-status plants have not been observed during several surveys of the project sites conducted during various months over the years." However, this reporting is misleading, because only one of the several surveys was conducted during the plant blooming season. Monk and Associates (2021, 2023) did not meet the minimum standards of CDFW's (2018) plant survey guidelines.

Environmental Setting informed by Desktop Review

The purpose of literature and database review and of consulting with local experts is to inform the field survey, and to augment interpretation of its outcome. Analysts need this information to identify which species are known to have occurred at or near the project site, and to identify which other special-status species could conceivably occur at the site due to geographic range overlap and migration flight paths.

Monk & Associates (2021) did not reportedly review eBird (https://eBird.org) or iNaturalist (https://www.inaturalist.org) for documented occurrence records at or near the project site. Instead, Monk & Associates (2021, 2023) queried the California Natural Diversity Data Base (CNDDB) for documented occurrences of special-status species within the three miles of the project sites. By taking this approach, Monk & Associates (2021, 2023) and the DEIR screen out many special-status species from further consideration in the characterization of the wildlife community as part of the existing environmental setting. CNDDB is not designed to support absence determinations or to screen out species from characterization of a site's wildlife community. As noted by CNDDB, "*The CNDDB is a positive sighting database. It does not predict where something may be found. We map occurrences only where we have documentation that the species was found at the site. There are many areas of the state where no surveys have been conducted and therefore there is nothing on the map. That does not mean that there are no special status species present*." Monk & Associates (2021, 2023) and the DEIR misuse CNDDB.

According to Monk & Associates (2021:6), "No special-status animal records have ever been mapped on the project site." The word "ever" adds emphasis to the finding. However, by implication, Monk & Associates (2021) misrepresents CNDDB as a database with uniform representation of California properties, which is far from the case. CNDDB relies entirely on volunteer reporting from biologists who were allowed access to whatever properties they report from. Many properties have never been surveyed by biologists. Many properties have been surveyed, but the survey outcomes never reported to CNDDB. Many properties have been surveyed multiple times, but not all survey outcomes reported to CNDDB. Furthermore, CNDDB is interested only in the findings of special-status species, which means that species more recently assigned special status will have been reported many fewer times to CNDDB than were species assigned special status since the inception of CNDDB. The lack of many CNDDB records for species recently assigned special status had nothing to do with whether the species' geographic ranges overlapped the project site, but rather more to do with the brief time for records to have accumulated since the species were assigned special status. And because negative findings are not reported to CNDDB, CNDDB cannot provide the basis for estimating occurrence likelihoods, either.

In my assessment based on database reviews and site visits, 128 special-status species of wildlife are known to occur near enough to the site (SMP 38, SMP 39, SMP 40) to warrant analysis of occurrence potential (Table 2). Of these 128 species, 19 (15%) were recorded on the project site, and another 35 (27%) species have been documented within 1.5 miles of the site ('Very close'), another 13 (10%) within 1.5 and 4 miles

('Nearby'), and another 57 (45%) within 4 to 30 miles ('In region'). More than half (52%) of the species in Table 2 have been reportedly seen within 4 miles of the project site. The site therefore supports multiple special-status species of wildlife and carries the potential for supporting many more special-status species of wildlife based on proximity of recorded occurrences. The site is far richer in special-status species than is characterized in the DEIR.

Whereas Monk & Associates (2021, 2023) reportedly queried CNDDB for occurrence records within three miles of the project sites, the DEIR analyzes the occurrence likelihoods of only 6 (<5%) of the species in Table 2. That only 6 special-status species were identified from occurrence records within 3 miles strains credulity. As noted above, using eBird and iNaturalist, I found records of 54 special-status species of wildlife within only 1.5 miles of the project sites, and 67 within 4 miles of the sites.

Of the 6 species included in Monk & Associates (2021, 2023) analyses of occurrence likelihoods, the DEIR concludes that 4 have no chance of occurrence, 1 has low to no chance, and 1 has low to moderate chance of occurrence. Except for species whose habitat is compellingly absent from the site, absence determinations are inappropriate based on the evidence gathered by Monk & Associates (2021, 2023). Absence determinations are supportable only after species-specific protocol-level detection surveys have been completed to the standards of the protocols, and the species were nevertheless not detected. No such surveys have been completed. It is inappropriate to conclude that a species is absent simply by looking at a site, and it is especially inappropriate to do so for 125 species of wildlife. Important findings of Monk & Associates (2021, 2023) and the DEIR are not supportable.

Of the special-status species that Monk & Associates (2021, 2023)) claims to be absent from one or both of the project sites, two – burrowing owl and loggerhead shrike – have been seen where they were reported to be absent. Occurrence records of another 2 supposedly absent special-status species have been reported within only 1.5 miles of the site, and another has been reported within 1.5 and 4 miles of the project site. Important findings of Monk & Associates (2021, 2023) and the DEIR are not supportable.

Of the 122 special-status species in Table 2, but which the DEIR does not analyze for occurrence potential, some are unlikely to occur, whereas many *are* likely to occur. With ground squirrels known to be present on SMP 39 and SMP 40, there is reason to expect the occurrences of American badger, ferruginous hawk, bald eagle and golden eagle. I regularly observed these species in the Altamont Pass Wind Resource Areas while I performed various studies there from 1999 through 2019. Golden eagles, I continue to record both in the Altamont Pass and over and on the project sites (Figure 3). Of the 45 golden eagles that Douglas Bell captured and fit with GPS telemetry backpacks since 2013, 11 have flown to or perched in the areas of the project sites (Figure 3).

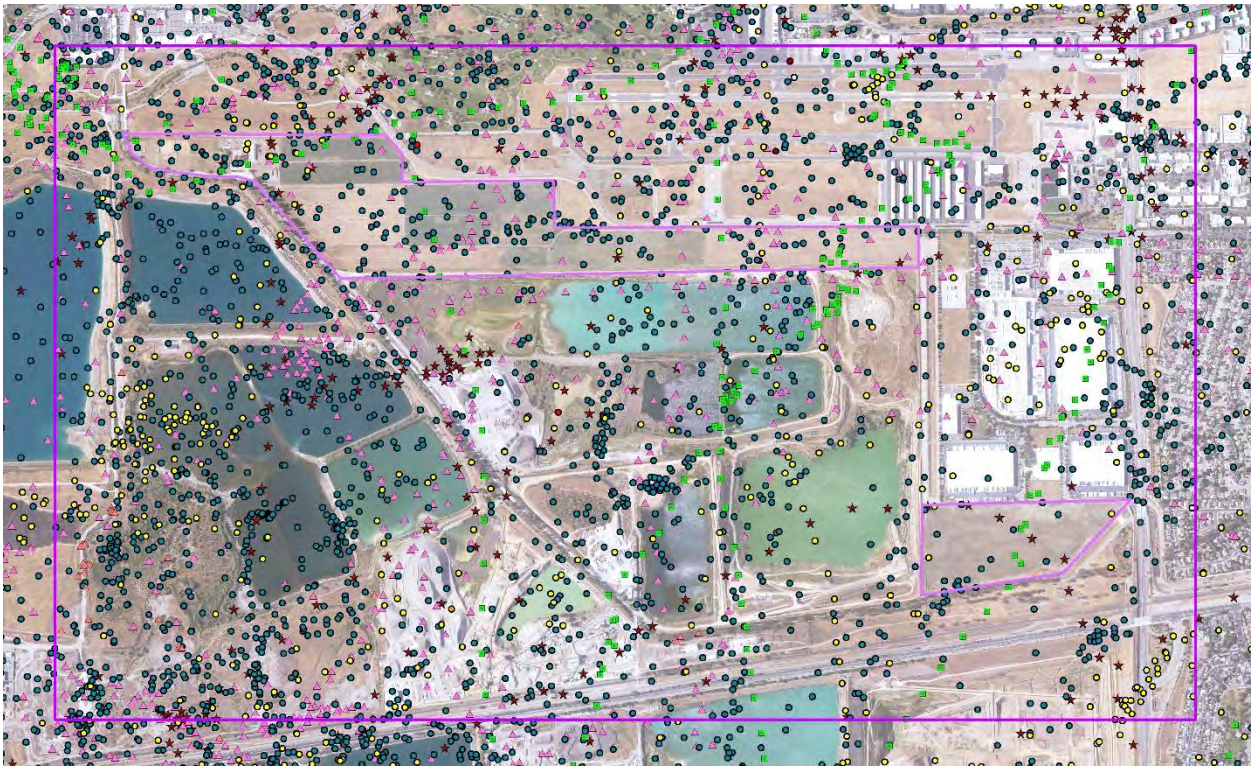


Figure 3. GPS telemetry positions (N = 3,478) of 11 golden eagles from 2014 through 2023, each distinct color-symbol combination representative of one golden eagle. Many of the positions are on SMP 38, SMP 39, and SMP 40. Many of the positions are of flying golden eagles, and some are of perched golden eagles.

Considering the inaccuracies of the DEIR's characterization of the existing environmental setting, the reasonable course of action would be to withdraw the current draft EUIR and prepare a new one to appropriately characterize the existing environmental setting. The public needs to understand the nature of the sensitive biological assets that exist on the project sites.

Table 2. Occurrence likelihoods of special-status bird species at or near the proposed project site, according to eBird/iNaturalist records (https://eBird.org, https://www.inaturalist.org) and on-site survey findings, where 'Very close' indicates within 1.5 miles of the site, "nearby" indicates within 1.5 and 4 miles, and "in region" indicates within 4 and 30 miles, and 'in range' means the species' geographic range overlaps the site. Entries in bold font indicate those species I detected during my reconnaissance surveys.

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Longhorn fairy shrimp	*Branchinecta longiantenna*	FE		In region
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT		In region
Vernal pool tadpole shrimp	*Lepidurus packardi*	FE		In region
Monarch	*Danaus plexippus*	FC		Very close
Crotch's bumble bee	*Bombus crotchii*	CCE		In region
California tiger salamander	*Ambystoma californiense*	FT, CT, WL	None	Nearby
Foothill yellow-legged frog	*Rana boylii*	CT, SSC		In region
California red-legged frog	*Rana draytonii*	FT, SSC	None	Nearby
Western pond turtle	*Emys marmorata*	SSC	None	Very close
Blainville's horned lizard	*Phrynosoma blainvillii*	SSC		In region
Northern California legless lizard	*Anniella pulchra*	SSC		In region
California glossy snake	*Arizona elegans occidentalis*	SSC		In region
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	SSC		In region
Alameda whipsnake	*Coluber lateralis euryxanthus*	FT, CT		In region
Brant	*Branta bernicla*	SSC2		In region
Cackling goose (Aleutian)	*Branta hutchinsii leucopareia*	WL		On site
Redhead	*Aythya americana*	SSC2		Very close
Harlequin duck	*Histrionicus histrionicus*	SSC2		In region
Barrow's goldeneye	*Bucephala islandica*	SSC		Very close
Western grebe	*Aechmophorus occidentalis*	BCC		Very close
Clark's grebe	*Aechmophorus clarkii*	BCC		Very close
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT, CE, BCC		In region
Black swift	*Cypseloides niger*	SSC3, BCC		In region
Vaux's swift	*Chaetura vauxi*	SSC2, BCC		Very close
Costa's hummingbird	*Calypte costae*	BCC		In region
Rufous hummingbird	*Selasphorus rufus*	BCC		Very close

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Allen's hummingbird	*Selasphorus sasin*	BCC		Very close
Ridgway's rail (San Francisco Bay)	*Rallus obsoletus obsoletus*			In region
Yellow rail				In region
Lesser sandhill crane	*Antigone canadensis canadensis*	SSC3		In region
Greater sandhill crane	*Antigone canadensis tabida*	CT, FP		In region
American avocet[4]	*Recurvirostra americana*	BCC		Very close
Mountain plover	*Charadrius montanus*	SSC2, BCC		In region
Snowy plover	*Charadrius nivosus*	BCC		In region
Western snowy plover	*Charadrius nivosus nivosus*	FT, SSC, BCC		In region
Whimbrel[4]	*Numenius phaeopus*	BCC		In region
Long-billed curlew	*Numenius americanus*	WL		Very close
Marbled godwit	*Limosa fedoa*	BCC		Very close
Red knot (Pacific)	*Calidris canutus*	BCC		Very close
Short-billed dowitcher	*Limnodromus griseus*	BCC		Nearby
Willet	*Tringa semipalmata*	BCC		Very close
Laughing gull	*Leucophaeus atricilla*	WL		In region
Heermann's gull	*Larus heermanni*	BCC		In region
Western gull	*Larus occidentalis*	BCC		Very close
California gull	*Larus californicus*	BCC, WL		On site
California least tern	*Sternula antillarum browni*	FE, CE, FP		In region
Black tern	*Chlidonias niger*	SSC2, BCC		In region
Elegant tern	*Thalasseus elegans*	BCC, WL		Nearby
Black skimmer	*Rynchops niger*	BCC, SSC3		In region
Common loon	*Gavia immer*	SSC		Very close
Brandt's cormorant	*Urile penicillatus*	BCC		Nearby
Double-crested cormorant	*Phalacrocorax auritus*	WL		On site
American white pelican	*Pelacanus erythrorhynchos*	SSC1, BCC		Very close
California brown pelican	*Pelecanus occidentalis californicus*	FP		In region
Least bittern	*Ixobrychus exilis*	SSC2		In region

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
White-faced ibis	*Plegadis chihi*	WL		Nearby
Turkey vulture	*Cathartes aura*	BOP		On site
Osprey	*Pandion haliaetus*	WL, BOP		Very close
White-tailed kite	*Elanus luecurus*	CFP, BOP		On site
Golden eagle	*Aquila chrysaetos*	BGEPA, CFP, BOP, WL		On site
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP		On site
Sharp-shinned hawk	*Accipiter striatus*	WL, BOP		Very close
Cooper's hawk	*Accipiter cooperii*	WL, BOP		On site
American goshawk	*Accipiter atricapillus*	SSC2, BOP		In region
Bald eagle	*Haliaeetus leucocephalus*	CE, BGEPA		Very close
Red-shouldered hawk	*Buteo lineatus*	BOP		Very close
Swainson's hawk	*Buteo swainsoni*	CT, BOP		Very close
Red-tailed hawk	*Buteo jamaicensis*	BOP		On site
Ferruginous hawk	*Buteo regalis*	WL, BOP		On site
Rough-legged hawk	*Buteo lagopus*	BOP		Nearby
Barn owl	*Tyto alba*	BOP		Very close
Western screech-owl	*Megascops kennicotti*	BOP		Very close
Great horned owl	*Bubo virginianus*	BOP		Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2, BOP	Not likely	On site
Long-eared owl	*Asio otus*	BCC, SSC3, BOP		In region
Short-eared owl	*Asia flammeus*	BCC, SSC3, BOP		In region
Lewis's woodpecker	*Melanerpes lewis*	BCC		Very close
Nuttall's woodpecker	*Picoides nuttallii*	BCC		On site
American kestrel	*Falco sparverius*	BOP		On site
Merlin	*Falco columbarius*	WL, BOP		On site
Peregrine falcon	*Falco peregrinus*	BOP		Very close
Prairie falcon	*Falco mexicanus*	WL, BOP		Very close
Olive-sided flycatcher	*Contopus cooperi*	BCC, SSC2		Very close
Willow flycatcher	*Empidonax traillii*	CE		Very close

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Vermilion flycatcher	*Pyrocephalus rubinus*	SSC2		Nearby
Loggerhead shrike	*Lanius ludovicianus*	SSC2	Low to moderate	On site
Yellow-billed magpie	*Pica nuttalli*	BCC		Very close
Oak titmouse	*Baeolophus inornatus*	BCC		On site
California horned lark	*Eremophila alpestris actia*	WL		On site
Bank swallow	*Riparia riparia*	CT		In region
Purple martin	*Progne subis*	SSC2		In region
Wrentit	*Chamaea fasciata*	BCC		Very close
California thrasher	*Toxostoma redivivum*	BCC		Very close
Cassin's finch	*Haemorhous cassinii*	BCC		In region
Lawrence's goldfinch	*Spinus lawrencei*	BCC		On site
Grasshopper sparrow	*Ammodramus savannarum*	SSC2		Nearby
Alameda song sparrow	*Melospiza melodia pusillula*	BCC, SSC2		In region
Black-chinned sparrow	*Spizella atrogularis*	BCC		In region
Gray-headed junco	*Junco hyemalis caniceps*	WL		In region
Bell's sparrow	*Amphispiza b. belli*	WL		In region
Yellow-breasted chat	*Icteria virens*	SSC3		Nearby
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3		Nearby
Bullock's oriole	*Icterus bullockii*	BCC		On site
Tricolored blackbird	*Agelaius tricolor*	CT, BCC, SSC1	Low to none	Very close
Lucy's warbler	*Leiothlypis luciae*	SSC3, BCC		In region
Virginia's warbler	*Leiothlypis virginiae*	WL, BCC		In region
Yellow warbler	*Setophaga petechia*	SSC2		Very close
Summer tanager	*Piranga rubra*	SSC1		In region
Pallid bat	*Antrozous pallidus*	SSC, WBWG:H		In region
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG:H		In region
Canyon bat	*Parastrellus hesperus*	WBWG:L		In region
Big brown bat	*Episticus fuscus*	WBWG:L		In region
Silver-haired bat	*Lasionycteris noctivagans*	WBWG:M		In region
Western red bat	*Lasiurus blossevillii*	SSC, WBWG:H		In region

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Hoary bat	*Lasiurus cinereus*	WBWG:M		In region
Western small-footed myotis	*Myotis cililabrum*	WBWG:M		In range
Miller's myotis	*Myotis evotis*	WBWG:M		In region
Little brown myotis	*Myotis lucifugus*	WBWG:M		In region
Fringed myotis	*Myotis thysanodes*	WBWG:H		In range
Long-legged myotis	*Myotis volans*	WBWG:H		In range
Yuma myotis	*Myotis yumanensis*	WBWG:LM		In region
California myotis	*Myotis californicus*	WBWG:L		In region
Western mastiff bat	*Eumops perotis*	SSC, WBWG:H		In range
Mexican free-tailed bat	*Tadarida brasiliensis*	WBWG:L		In region
San Francisco dusky-footed woodrat	*Neotoma fuscipes annectens*	SSC		In region
Ringtail	*Bassariscus astutus*	CFP		In region
American badger	*Taxidea taxus*	SSC		Nearby
Mountain lion	*Puma concolor*	CCT		Nearby

[1] Listed as FC, FT or FE = federal candidate, threatened or endangered, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, CCT, CCE, CT or CE = California Candidate threatened or endangered, or California threatened or endangered, CFP = California Fully Protected (California Fish and Game Code 3511), SSC = California Species of Special Concern, SSC1, SSC2 and SSC3 = Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), WL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (CFG Code 3503.5), and WBWG = Western Bat Working Group with priority rankings, of low (L), moderate (M), and high (H).

POTENTIAL BIOLOGICAL IMPACTS

An impacts analysis should consider whether and how a proposed project would affect members of a species, larger demographic units of the species, the whole of a species, and ecological communities. The accuracy of this analysis depends on an accurate characterization of the existing environmental setting. In the case of the proposed project, the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, interference with wildlife movement, and wildlife-automobile collision mortality.

HABITAT LOSS

Habitat loss results in a reduced productive capacity of affected wildlife species, but the DEIR offers no prediction of this lost capacity for any of the wildlife species potentially affected. In the case of birds, two methods exist for estimating the loss of productive capacity that would be caused by the project. One method would involve surveys to count the number of bird nests and chicks produced. The alternative method would be to infer productive capacity from estimates of total nest density elsewhere.

Because the project is located within an area that has undergone severe habitat fragmentation, the habitat that remains in fragmented patches probably no longer supports its original productive capacity of wildlife (Smallwood 2015, Smallwood and Smallwood 2023). However, several studies have estimated total avian nest density at locations that had likewise been highly fragmented. Two study sites in grassland/wetland/woodland complexes within agricultural matrices had total bird nesting densities of 32.8 and 35.8 nests per acre (Young 1948, Yahner 1982) for an average 34.3 nests per acre. Assuming total nest density at the project site is about a third of that of the above-cited study sites due to the annual disking of the project site's interior areas, I predict SMP 38 (111.7 acres), SMP 39 (51.9 acres) and SMP 40 (41 acres) support 11.4 bird nests/acre/year. Based on this assumption, the combined projects, SMP 39 and SMP 40, on 92.9 acres would eliminate 1,059 nest sites, and assuming SMP 38 is also later developed, then the combined projects, SMP 38, SMP 39, and SMP 40, on 204.6 would eliminate 2,332 nest sites.

The loss of 1059 to 2,332 nest sites would easily qualify as a significant project impact that has not been quantitatively addressed in the DEIR. But the impact would not end with the immediate loss of nest sites as nest substrate is removed and foraging grounds graded in preparation for impervious surfaces. The reproductive capacity of the site would be lost. The average number of fledglings per nest in Young's (1948) study was 2.9. Assuming Young's (1948) study site typifies bird productivity, the project would prevent the production of 3,071 to 6,763 fledglings per year, depending on whether SMP 38 is developed. Assuming an average bird generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from an equation in Smallwood (2022): {(nests/year × chicks/nest × number of years) + (2 adults/nest × nests/year) × (number of years ÷ years/generation)} ÷ (number of years) = 3,495 to 7,696 birds per year denied to California, depending on whether SMP 38 is developed.

These losses of birds from California would be substantial, nearly equal to the annual loss of birds caused by wind turbine collision mortality in the nearby Altamont Pass Wind Resource Area (Adams Broadwell Joseph & Cardozo 8 January 2021 letter to Alameda County Planning Department regarding Comments on the Draft Subsequent Environmental Impact Report for the Mulqueeney Ranch Wind Repowering Project (SCH No. 2010082063), CUP Application No. PLN2019-00226). These losses would be highly significant.

INTERFERENCE WITH WILDLIFE MOVEMENT

One of CEQA's principal concerns regarding potential project impacts is whether a proposed project would interfere with wildlife movement in the region. Unfortunately, the DEIR's analysis of whether the project would interfere with wildlife movement in the region is flawed and misleading. According to the DEIR, "The project area does not fall within an Essential Habitat Connectivity area mapped by the CDFW." However, at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18486, the California Essential Habitat Connectivity Project specifically points out that it is not: "A California Department of Fish and Game or US Fish and Wildlife Service response to potential impacts to a habitat or species from a project subject to the California Environmental Quality Act (CEQA)," nor "Fine scale, with every important piece of habitat identified" nor ""Essential", meaning the only places of importance" nor "A solution by itself for how to provide necessary linkages for any given species of plant or animal... Linkage designs will vary depending on focal species chosen and the goal of providing connected habitat for a chosen species might be met several different ways" nor "The final word on connectivity for California." With analytical grid cells of 2,000 acres, the spatial grain of the California Essential Habitat Connectivity Project is much too coarse for the conclusion the DEIR draws from it.

The next flaw in the DEIR is in the argument that SMP 39 is cut off from open areas by well-trafficked roads, the airport, the gravel quarries, and therefore cannot function as a wildlife movement corridor. The same argument is made for SMP 40. On this point, the DEIR merely speculates, and offers no supporting evidence to its assertion. Monk & Associates (2021, 2023) report no survey methodology designed to determine whether wildlife rely on the site for movement in the region. They implemented no sampling regime nor a program of observation to record wildlife movement patterns. They failed to quantitatively or qualitatively analyze movement patterns of observed wildlife. Based on what is reported, Monk & Associates (2021, 2023) did not record or measure wildlife movement in any way. The conclusions of the DEIR regarding wildlife movement on the project site are speculative and conclusory.

On the other hand, the coyote I saw on site got there somehow, and so did the ground squirrels and pocket gophers, and so did all of the birds I saw on and over SMP 39. I observed hundreds if not thousands of gulls of multiple species flying in both easterly and westerly directions across SMP 38, SMP 39, and SMP 40. I observed Canada geese and Aleutian cackling geese flying to and from the quarry ponds and the project sites to forage. I saw a Cooper's hawk fly from the airport to SMP 39 to forage, crossing the well-trafficked road in about 2 seconds of flight time. Figure 3 illustrates that our telemetered

golden eagles from the Altamont Pass make frequent visits to the project site. That thousands of our golden eagle telemetry positions appear in the project area is consistent with the pattern that my co-investigators and I have noticed about golden eagle movement across California and beyond to other states and border nations, and that is that golden eagles carefully select open spaces as parts of their travel routes. The project area is important to golden eagle movement in the region, just as it is important to the 10 special-status species I observed on the project site, and to the 19 special-status species so far documented on the project site. Th evidence is overwhelming that the project site is important to wildlife movement in the region. Losing the open space of this site would be devastating to many species of wildlife, including to golden eagle.

Furthermore, whether the site includes or is within a wildlife movement corridor is not the only consideration when it comes to the standard CEQA Checklist question of whether the project would interfere with wildlife movement in the region. The primary phrase of the CEQA standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, a site such as the project site is critically important for wildlife movement because it composes an increasingly diminishing area of open space within a growing expanse of anthropogenic uses, forcing more species of volant wildlife to use the site for stopover and staging during migration, dispersal, and home range patrol (Warnock 2010, Taylor et al. 2011, Runge et al. 2014). The project, due to its elimination of at least 92.9 acres of open space, and more realistically 204.6 acres of open space, and due to its insertion of multiple new buildings into the aerospace currently used by birds, bats and butterflies. would cut wildlife off from one of the last remaining stopover and staging opportunities in the region, forcing volant wildlife to travel even farther between remaining stopover sites. This impact would be significant, and as the project is currently proposed, it would be unmitigated.

TRAFFIC IMPACTS TO WILDLIFE

Project-generated traffic would endanger wildlife that must, for various reasons, cross roads used by the project's traffic to get to and from the project site (Photos 22—26), including along roads far from the project footprint. Vehicle collisions have accounted for the deaths of many thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

The nearest study of traffic-caused wildlife mortality was performed only 11 miles away, along a 2.5-mile stretch of Vasco Road in Contra Costa County, California. Fatality searches in this study found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needs to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality

searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study I completed next to Vasco Road concurrent to the Mendelsohn et al. study (Brown et al. 2016). Brown et al.'s (2016) adjustment factors for carcass persistence resembled those of Santos et al. (2011), which were derived from carcasses placed along roads. Applying searcher detection rates from Brown et al. (2016), the adjusted total number of fatalities was estimated at 12,187 animals killed by traffic on the reach of road that was studied. This fatality number over 1.25 years and 2.5 miles of road translates to 3,900 wild animals per mile per year. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic generated by the project site would similarly result in local impacts on wildlife.

Photo 22. A Gambel's quail dashes across a road on *3 April 2021. Such road crossings are usually successful, but too often prove fatal to the animal. Photo by Noriko Smallwood*.

Photo 23. California ground squirrel in the middle of an eastern Alameda County road on 13 March 2014.

Photo 24. Western Pacific rattlesnake on an eastern Alameda County road, 23 August 2011. Photo by Shawn Smallwood.

Photo 25. Mourning dove killed by vehicle on a California road. Photo by Noriko Smallwood, 21 June 2020.

Photo 26 Raccoon killed on Road 31 just east of Highway 505 in Solano County. Photo taken on 10 November 2018.

For wildlife vulnerable to front-end collisions and crushing under tires, road mortality can be predicted from the study of Mendelsohn et al. (2009) as a basis, although it would be helpful to have the availability of more studies like that of Mendelsohn et al. (2009) at additional locations. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,900 animals killed per mile along a county road in Contra Costa County. Two percent of the estimated number of fatalities were birds, and the balance was composed of 34% mammals (many mice and pocket mice, but also ground squirrels, desert cottontails, striped skunks, American badgers, raccoons, and others), 52.3% amphibians (large numbers of California tiger salamanders and California red-legged frogs, but also Sierran treefrogs, western toads, arboreal salamanders, slender salamanders and others), and 11.7% reptiles (many western fence lizards, but also skinks, alligator lizards, and snakes of various species). VMT is useful for predicting wildlife mortality because I was able to quantify miles traveled along the studied reach of Vasco Road during the time period of the Mendelsohn et al. (2009), hence enabling a

rate of fatalities per VMT that can be projected to other sites, assuming similar collision fatality rates.

From October 2016 through December 2019, I maintained my own database of wildlife mortality I encountered on Vasco Road between Marsh Creek Road and Livermore, which encompassed the wildlife mortality study site of Mendelsohn et al. (2009). Table 3 includes the wildlife I found as fatalities, and it compares my crudely calculated ratio of observed fatalities per mile. From Table 3, it is apparent that mortality along the reach of road studied by Mendelsohn et al. (2009) was relatively low compared to the rest of Vasco Road: $^{19.178}/_{13.200} = 5{,}667$ fatalities per mile predicted for the 14.1 miles of Vasco Road that were not studies by Mendelsohn et al. (2009).

Table 3. Fatalities I found along Vasco Road from October 2016 though December 2019, and along 14.1 miles of road that was not studied by Mendelsohn et al. (2009) and 2.5 miles that were studied.

		Observed fatalities		Observed fatalities/mile	
Common name	Scientific name	14.1 miles offsite	2.5- mile study site	14.1 miles offsite	2.5-mile study site
Alligator lizard	*Elgaria multicarinata*	1		0.068	0.000
American badger	*Taxidea taxus*	3	2	0.205	0.800
American crow	*Corvus brachyrhynchos*	2		0.137	0.000
Barn owl	*Tyto alba*	21	2	1.438	0.800
Bird (Scrub-jay sized)		1		0.068	0.000
Blackbird	*Agelaius*	2		0.137	0.000
Black-tailed jackrabbit	*Lepus californicus*	2		0.137	0.000
Bobcat	*Felis rufus*	2		0.137	0.000
Buffelhead	*Bucephala albeola*	1		0.068	0.000
California kingsnake	*Lampropeltis getula californiae*		1	0.000	0.400
Common poorwill	*Phalaenoptilus nuttallii*	1		0.068	0.000
Coyote	*Canis latrans*	29	2	1.986	0.800
Desert cottontail	*Sylvilagus audubonii*	66	5	4.521	2.000
Gopher snake	*Pituophis c. catenifer*	15	2	1.027	0.800
Ground squirrel	*Otospermophilus beecheyi*	23	3	1.575	1.200
Gull	*Laridae*	1	1	0.068	0.400
Helmeted guineefowl	*Numida meleagris*	3		0.205	0.000
House cat	*Felis catus*	1		0.068	0.000
Kangaroo rat	*Dipodomys*	1		0.068	0.000
Large white bird		1		0.068	0.000
medium-sized bird			1	0.000	0.400

Common name	Scientific name	Observed fatalities		Observed fatalities/mile	
		14.1 miles offsite	2.5- mile study site	14.1 miles offsite	2.5-mile study site
medium-sized mammal		2		0.137	0.000
Mule deer	*Odocoileus hemionus*	5		0.342	0.000
Muskrat	*Ondatra zibethicus*	1		0.068	0.000
Northern harrier	*Circus hudsonicus*	1		0.068	0.000
Osprey	*Pandion haliaetus*	1		0.068	0.000
Pocket gopher	*Thomomys bottae*	1		0.068	0.000
Raccoon	*Procyon lotor*	25	5	1.712	2.000
Western Pacific rattlesnake	*Crotalus oreganus*	2		0.137	0.000
Red fox	*Vulpes vulpes*	1		0.068	0.000
Red-tailed hawk	*Buteo jamaicensis*	5		0.342	0.000
Red-winged blackbird	*Agelaius phoenecius*	1		0.068	0.000
Rock pigeon	*Columba livea*	1		0.068	0.000
Short-eared owl	*Asio flammeus*	1		0.068	0.000
Snake		1		0.068	0.000
Striped skunk	*Mephitis mephitis*	41	9	2.808	3.600
Turkey vulture	*Cathartes aura*	1		0.068	0.000
Virginia opossum	*Didelphis virginiana*	7		0.479	0.000
Western meadowlark	*Sturnella neglecta*	1		0.068	0.000
Wild turkey	*Meleagris gallopavo*	6		0.411	0.000
Total		280	33	19.178	13.200

Predicting project-generated traffic impacts to wildlife

The DEIR predicts the project would generate 8,622,395 annual VMT. During the Mendelsohn et al. (2009) study, 19,500 cars traveled Vasco Road daily, so the vehicle miles that contributed to my estimate of non-volant fatalities was 19,500 cars and trucks × 2.5 miles × 365 days/year × 1.25 years = 22,242,187.5 vehicle miles per 12,187 wildlife fatalities, or 1,825 vehicle miles per fatality. This rate divided into the predicted annual VMT, above, would predict 4,725 vertebrate wildlife fatalities per year. My analysis of data in Table 3 suggests that the project-caused mortality along local roadways would be even higher.

Based on my analysis, the project-generated traffic would cause substantial, significant impacts to wildlife. The DEIR does not address this potential impact, let alone propose to mitigate it. Mitigation measures to improve wildlife safety along roads are available and are feasible, and they need exploration for their suitability with the proposed project. Given the predicted level of project-generated, traffic-caused mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts. The DEIR should be withdrawn

from circulation and revised to appropriately analyze the potential impacts of project-generated automobile traffic on wildlife.

CUMULATIVE IMPACTS

The DEIR attempts to minimalize the project's contributions to cumulative impacts to biological resources by asserting that "ruderal herbaceous land is not considered sensitive wildlife habitat." However, CEQA does not require that the habitat that would be lost to a project be labeled as sensitive; no such standard exists.

The DEIR presents a flawed analysis of cumulative impacts, including to biological resources. The DEIR asserts that it "sets forth mitigation measures to ensure all potential project-specific impacts that would occur to biological resources are reduced to a less-than-significant level." And therefore, "the proposed project would not result in substantial adverse effects to biological resources protected by CEQA." The DEIR contrives the false standard that a given project impact is cumulatively considerable only when it has not been fully mitigated at the project level. The DEIR implies that cumulative impacts are really residual impacts left over by inadequate mitigation of project impacts. This notion of residual impacts being the source of cumulative impacts is inconsistent with CEQA's definition of cumulative effects. Individually mitigated projects do not negate the significance of cumulative impacts. If they did, then CEQA would not require a cumulative effects analysis. To summarize, the DEIR presents no cumulative effects analysis as defined in two ways by CEQA.

MITIGATION

Western Burrowing Owl

4.3-2(a) If project construction begins during the western burrowing owl nesting season (February 15 to August 31), a qualified biologist shall conduct targeted burrowing owl nest surveys within 14 days prior to construction activities using seven- to 20-foot transects. ... The survey shall ... follow CDFW guidelines outlined in the 2012 Staff Report on Burrowing Owl Mitigation.

The avian breeding season recognized by the CDFW is now 1 February through 15 September. The DEIR should be revised accordingly.

Whereas I concur that preconstruction, take-avoidance surveys should be completed, the DEIR falsely characterizes preconstruction surveys as detection surveys by insinuating that conducting preconstruction surveys without first having completed detection surveys would follow CDFW guidelines. Detection surveys are entirely different than preconstruction surveys, and are implemented to achieve a different set of objectives. Contrary to the DEIR's implication, preconstruction surveys are not designed to detect burrowing owls with anywhere close to the same likelihood as are protocol-level detection surveys that are designed for this purpose. It would be very easy for a preconstruction survey to fail to detect burrowing owls that are in fact present. Therefore, implementing a preconstruction survey as a surrogate for detection surveys would be reckless and would fail to meet the minimum standard of care for wildlife

protection. In any case, preconstruction surveys need to be implemented after completion of detection surveys per CDFW (2012).

Tricolored Blackbird

4.3-2(c) Prior to any ground disturbance on SMP 40, a qualified biologist shall conduct a preconstruction survey in all accessible areas identified as supporting potential tricolored blackbird nesting habitat. The survey shall document the current, and to the extent possible, historical presence or absence of nesting colonies of tricolored blackbird. …

Whereas I concur that preconstruction, take-avoidance surveys should be completed, a detection survey is needed first to inform the readers of the DEIR of whether and where tricolored blackbirds occur on or near the project sites. A detection survey would likely also improve the efficacy of the preconstruction survey.

Nesting Birds and Raptors (Including Loggerhead Shrike)

4.3-2(d) If project construction begins during the nesting season (February 1 to August 31), a qualified biologist shall conduct a nesting bird survey within 7 days prior to construction activities. … If migratory birds are identified nesting on or within the zone of influence, … A qualified biologist shall establish a temporary protective nest buffer around the nest(s). The nest buffer shall be staked with orange construction fencing. The buffer must be of sufficient size to protect the nesting site from construction-related disturbance and shall be established by a qualified ornithologist or biologist with extensive experience working with nesting birds near and on construction sites.

Typically, adequate nesting buffers are 75 feet from the nest site or nest tree dripline for small birds and up to 300 feet for sensitive nesting birds that include several raptor species known in the region of the project site but that are not expected to occur on the project site. Upon completion of nesting surveys, if nesting birds are identified on or within a zone of influence of the project site, a qualified ornithologist/biologist that frequently works with nesting birds shall prescribe adequate nesting buffers to protect the nesting birds from harm while the project is constructed.

First, the avian breeding season recognized by the CDFW is now 1 February through 15 September. The DEIR should be revised accordingly.

Second, whereas I concur that preconstruction, take-avoidance surveys should be completed, in my experience the majority of bird nests would not be found by biologists assigned to the survey. For instance, I surveyed for grassland nesters as part of an intensive survey effort that I performed from March through mid-August 2023 on a Central Valley site. I surveyed the site 30 times. I found that the nests of grassland birds are the most difficult to locate. Cavity nesters can more effectively defend their nests against predators, whereas ground nesters are highly vulnerable to predation, and thus the most cryptic of nesters. Ground nesters, which include bird species that occur at the project site, are highly adept at concealing their nests both physically and behaviorally. Based on my experience, it is highly likely that preconstruction survey would fail to find

any of the nests of ground-nesting birds that truly occur on the project site. The DEIR's implication that preconstruction survey would reduce potential impacts to nesting birds to less-than-significant is unsubstantiated by evidence in the DEIR.

The mitigation measure appears to be specifically directed toward loggerhead shrike, presumably because this special-status species was detected during a reconnaissance survey of SMP 40. Finding the nests of loggerhead shrikes is particularly difficult, as this species is expert at deceiving observers as to the whereabouts of their nests (Smallwood and Smallwood 2021). To adequately survey for nest sites of loggerhead shrike, many surveys are needed, and the survey methods need to include long sessions of visual-scans, preferably from blinds such as automobiles. Observers would need to be experienced in bird behavior, and capable of tracking the movements of individual loggerhead shrikes. A preconstruction survey for loggerhead shrike nest would be ineffective by having inexperienced biologists walk back and forth along transects.

Third, the mitigation language (second italicized paragraph above) allows a single individual to make a subjective decision, outside the public's view, to determine the buffer area for any given species. This measure lacks objective criteria, and is unenforceable.

Even assuming some or even all of the nests would be found and salvaged, this benefit to birds nesting on site would apply only to a single breeding season of nesters. The project would nevertheless eliminate the site's productive capacity to birds.

SMP 40 and Trail Connection Option 2
4.3-3(c) Prior to the commencement of ground-disturbing activities for SMP 40 or Trail Connection Option 2, … [Six minimization and mitigation measures follow, one of which is] *… the riparian corridor of Arroyo Mocho, disturbed areas shall be revegetated with native riparian plant species. Replacement of riparian trees to be removed shall be planted near the creek as feasible and/or adjacent to the existing limits of the riparian corridor to contribute to the existing riparian canopy. Riparian plantings shall be maintained for a minimum of 5 years to ensure that the canopy is enhanced and the understory restored.*

Trail Connection Option 2 – Undercrossing at Isabel Bridge
4.3-3(d) Prior to initiation of any groundbreaking activity associated with Trail Connection Option 2, … The project applicant shall ensure that the proposed project replaces, restores, or enhances on a "no net loss" basis (in accordance with the RWQCB) the acreage of all riparian habitat and waters of the State that would be removed, lost, and/or degraded due to project implementation by methods agreeable to the RWQCB and the City, as appropriate, depending on agency jurisdiction, and as determined during the Section 401 permitting processes. Methods include, but are not limited to implementation of a riparian enhancement planting plan and/or tree planting mitigation at a 1:1 ratio, or as otherwise prescribed by the RWQCB.

Trail Connection Option 2 – Undercrossing at Isabel Bridge

4.3-3(e) If it is determined that work below the OHWM cannot be avoided for Trail Connection Option 2, … Waters that would be lost or disturbed shall be restored, replaced, or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement, including the purchase of credits from a USACE approved mitigation bank at a 1:1 ratio, shall be at a location and by methods acceptable to the USACE.

I concur that all of the measures described above should be implemented if the project goes forward. However, these measure alone would be inadequate. Also needed is monitoring of wildlife that is integrated with thresholds of success and failure. If thresholds of failure are exceeded, then the City should be required to take additional steps to achieve success. To this end, an adequate performance bond should be provided by the applicant to the City.

RECOMMENDED MEASURES

Road Mortality: Compensatory mitigation is needed for the increased wildlife mortality that would be caused by bird-window collisions and the project-generated road traffic in the region. I suggest that this mitigation can be directed toward funding research to identify fatality patterns and effective impact reduction measures such as reduced speed limits and wildlife under-crossings or overcrossings of particularly dangerous road segments. Compensatory mitigation can also be provided in the form of donations to wildlife rehabilitation facilities (see below).

Fund Wildlife Rehabilitation Facilities: Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Many animals would likely be injured by collisions with automobiles traveling to and from the project's buildings.

Landscaping: If the project goes forward, California native plant landscaping (i.e., chaparral, grassland, and locally appropriate scrub plants) should be considered to be used as opposed to landscaping with lawn and exotic shrubs. Native plants offer more structure, cover, food resources, and nesting substrate for wildlife than landscaping with lawn. Native plant landscaping has been shown to increase the abundance of arthropods which act as importance sources of food for wildlife and are crucial for pollination and plant reproduction (Narango et al. 2017, Adams et al. 2020, Smallwood and Wood 2022.). Further, many endangered and threated insects require native host plants for reproduction and migration, e.g., monarch butterfly. Around the world, landscaping with native plants over exotic plants increases the abundance and diversity of birds, and is particularly valuable to native birds (Lerman and Warren 2011, Burghardt et al. 2008, Berthon et al. 2021, Smallwood and Wood 2022). Landscaping with native plants is a way to maintain or to bring back some of the natural habitat and lessen the footprint of urbanization by acting as interconnected patches of habitat for wildlife (Goddard et al. 2009, Tallamy 2020). Lastly, not only does native plant landscaping benefit wildlife, it requires less water and maintenance than traditional landscaping with lawn and hedges.

Thank you for your consideration,

_____
Shawn Smallwood, Ph.D.

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December 12, 2023

Stephanie Papayanis, Esq.
Mitchel M. Tsai, Attorney at Law
139 South Hudson Avenue, Suite 200
Pasadena CA 91101
stephanie@mitchtsailaw.com

Subject: **City of Livermore SMP 38/SMP 39/SMP 40 Project**
Review of DEIR Noise Section & Appendices

Dear Stephanie:

We have completed a review of Section 4.6 (Noise), as well as Appendices J and K (Environmental Noise Assessments) of the Draft Environmental Impact Report for the City of Livermore SMP 38/SMP 39/SMP 40 Project, focusing on the adequacy of the noise impact analyses. Here are our findings:

OVERVIEW

Section 4.6 of the DEIR is based on environmental noise assessments prepared by Salter.

- Significance Standards

  The DEIR significance standards for noise and vibration impacts are based directly on Section XIII of the Environmental Checklist in Appendix G of the current CEQA Guidelines, which reads as follows:

  XIII. NOISE - Would the project result in:

  a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of the local general plan or noise ordinance, or applicable standards of other agencies?

  b) Generation of excessive groundborne vibration or groundborne noise levels?

  c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?

  Salter has proposed a 3 dBA increase in ambient noise levels as the threshold for a "substantial increase". We concur that this is a reasonable value for CEQA evaluation of this project.

- Operational Noise & Construction Vibration

  The analysis in Section 4.6 shows that noise impacts from operational noise (loading dock activity, HVAC, on-site vehicle movements) as well as vibration during on-site construction are less-than-significant. Generally, the analysis supporting this finding appears to be methodical and well done, consistent with current CEQA Guidelines, and we take no exception to it.

- Construction Noise Impacts

  Section 4.6 also includes an analysis of construction noise impacts on the nearest sensitive uses – i.e.: the single-family residential neighborhood to the east of the project sites. This analysis covers on-site construction activity for SMP 40 as well as the construction of off-site trail connections at three potential locations (each within 200-feet of the nearest residential use).

The impact of construction noise on the SMP 39 site is not covered in the DEIR.

For the off-site trail connection construction, the DEIR states that noise impacts are significant without mitigation and provides a list of mitigation measures (4.6-1) to reduce this impact to less-than-significant level. Generally, we agree with this finding and the proposed mitigation measures.

For on-site construction, the DEIR states that noise impacts will be less-than-significant. However, the analysis presented in the DEIR does not – in our opinion – adequately support this conclusion, for the reasons outlined below.

PROBLEMS WITH THE ON-SITE CONSTRUCTION NOISE IMPACT ANALYSIS

- <u>SMP 39 is Excluded</u>

  Construction noise from the SMP 39 site is not included in the analysis in Section 4.6 of the DEIR. An explanation for this omission is provided in the final paragraph on page 4.6-21, which reads in part:

  "Due to the substantial distance between SMP 39 and the sensitive noise receptors, it was anticipated that construction noise associated SMP 39 would be below the City of Livermore's exterior noise level threshold of 60 dBA DNL at the nearest sensitive receptor locations. Thus, construction noise levels for SMP 39 were not evaluated as part of the Environmental Noise Study for SMP 39."

  There are two problems with this explanation:

  First, CEQA requires an actual analysis to show whether a project impact is significant or less-than-significant. Simply "anticipating" that there will be no significant impact falls short of the standard required for a CEQA study.

  Second, the 60 dBA DNL exterior noise standard (which comes from the land-use compatibility table in the Noise Element of the City of Livermore General Plan) is only one of the applicable local regulations. The DEIR analysis should address all applicable regulations in both the General Plan and Municipal Code.

- <u>Analysis for SMP 40 is Incomplete</u>

  The noise impact analysis for construction on the SMP 40 site compares Salter's noise level predictions with instantaneous maximum noise level (Lmax) limits of 70 dBA during the day and 60 dBA at night, which are taken from Policy N-1.5.P3 of the City of Livermore General Plan.

  However, these Lmax noise limits are not the only local regulations that would apply to construction noise on the SMP 40 site.

  For example, the DEIR does not show how construction noise from SMP 40 would compare to Policy N-1.5.P2 of the General Plan, which prescribes the following noise limits, depending on the cumulative duration of the noise:

Daytime Noise Limit (7AM – 10PM)	Nighttime Noise Limit (10PM – 7AM)	Cumulative Duration
60 dBA	50 dBA	No more than 15-minutes in any hour.
65 dBA	55 dBA	No more than 5-minutes in any hour.
70 dBA	60 dBA	No more than 1-minute in any hour.

Similarly, the DEIR does not include an DNL analysis for construction noise from SMP 40 to show that it will be below the 60 dBA exterior noise standard taken from land-use compatibility table (Table 9-7) in the General Plan. This will be particularly important if any construction work is to occur at night.

- <u>There is an Error in the Calculations for SMP 40</u>

  Table 4.6-6 of the DEIR lists estimated Lmax noise levels for various pieces of construction equipment at a distance of 50-feet (these are standard reference values, taken from the FHWA Construction Noise Handbook) and extrapolates them to a distance of 884 feet.

  According to Table 4.6-6, the equipment noise levels received at a distance of 884 are 57 dBA lower than lower than those received at a distance of 50-feet. This is incorrect. According to the radiation equation for point sources (such as individual pieces of construction equipment) the reduction in noise level from 50-feet to 884 feet is:

  $10 \times LOG_{10}(884/50) = 25$ dBA

  So, the estimated Lmax noise levels provided in Table 4.6-6 are 32 dBA lower than they should be. Which means that noise from several of the pieces of equipment listed should be expected to produce a maximum level of noise at the nearest residences that is either right at the 60 dBA nighttime limit or, in the case of paving equipment, 4 dBA above it.

- <u>Construction on the East Side of the SMP 40 Site is Overlooked</u>

  The construction noise analysis in the DEIR for SMP 40 considers assumes receivers 884-feet away from the equipment – which is the distance between the location proposed for Building 2 and the nearest residences. However, there will be certain phases of construction – such as site preparation and paving/landscaping/site concrete – when noisy equipment could be operating closer than 884-feet from nearby residential uses.

  For example, the eastern corner of the SMP 40 site is within 600-feet of the nearest residential use. Received noise levels at a distance of 600-feet from the equipment would be 3 dBA higher than those received at 884-feet, which means that the expected noise level at the nearest residences when paving equipment is in use in the eastern corner of the site would be 67 dBA, Lmax and not 32 dBA, Lmax as reported in Table 4.6-6.

SUMMARY & RECOMMENDATIONS

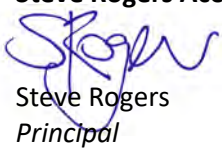
We find that, while much of the noise analysis in the DEIR has been done to the standard expected of a CEQA study, the evaluation of noise impacts during the construction phases is incomplete and contains a significant calculation error. We therefore recommend that the preparers be requested to revise/correct the Noise Section (4.6) of the DEIR as follows:

- Include SMP 39 in the on-site construction noise impact analysis. The analysis should take account of the anticipated number of pieces of equipment in use at any one time during each phase as well as estimated usage factors, so that construction noise impacts can be evaluated in the in the context of the City of Livermore General Plan DNL 60 dBA exterior noise standard (from Table 9-7) and the time-dependent noise limits in Policy N-1.5.P2, as well as the Lmax noise limits in Policy N-1.5.P3.
- For on-site construction on the SMP 40 site, the noise impact analysis should be expanded to take account of the anticipated number of pieces of equipment in use at any one time during each phase as well as estimated usage factors, so that construction noise impacts can be evaluated in the in the

context of the City of Livermore General Plan DNL 60 dBA exterior noise standard (from Table 9-7) and the time-dependent noise limits in Policy N-1.5.P2, as well as the Lmax noise limits in Policy N-1.5.P3.

- Table 4.6-6 should be revised to show the correct (25 dBA) reduction in point-source noise levels from 50-feet to 884-feet.
- Provide additional analysis for any construction activity on the SMP 40 site (such as site preparation, paving/landscaping) that could occur closer than 884-feet from the nearest residential use.

Yours sincerely,
Steve Rogers Acoustics, LLC



Steve Rogers
Principal

Attachment 2
SMP 40 Flood Study Memorandum

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS

870 Market Street, Suite 1278
San Francisco, CA 94102
(415) 433-4848
dschaaf@swsv.com

MEMORANDUM

DATE: February 2, 2024
TO: Timur Tecimer
Overton Moore Properties
FROM: Dan Schaaf, PE
Sarah Weinberg, EIT
SUBJECT: SMP 40 Flood Study
JOB #: OMPC.01.22

Introduction

Schaaf & Wheeler has been contracted by Overton Moore Properties to analyze the Arroyo Mocho models and mapping to determine if the SMP 40 development has any impact on the floodplain or hydrologic impacts. The effective (2023) Zone 7 HEC-RAS models were utilized with the proposed development.

Hydraulic Analysis and Results

Comparing the existing and proposed conditions, the results show that there are no significant impacts by adding the SMP 40 development. Figures 1 and 2 show the 100-year base condition flow hydrographs for the downstream cross section and Figures 3 and 4 show the hydrographs for the cross section closest to the proposed development. Both cross section locations are called out on Figures 5 and 6. At the downstream cross section, near the confluence with Arroyo Las Positas, the maximum 100-year flow increased slightly from 2,222cfs to 2,223cfs with the proposed development. The maximum 100-year elevation at the cross section close to the site the maximum flow increased from 3,818cfs to 3,830cfs with the proposed development. The maximum 100-year elevation increased slightly from 401.7 feet to 401.8 feet. Figures 5 and 6 show the maximum depth of flooding for a 100-year event, which has no significant change. Figure 7 shows the difference in water surface elevation for the proposed and existing scenarios. The only change occurs at the corner of the proposed development and causes an increase of about 0.3 feet in water surface elevation.

Conclusion

There is no significant impact by adding the SMP 40 development. The results are comparable to the Zone 7 floodplain results.

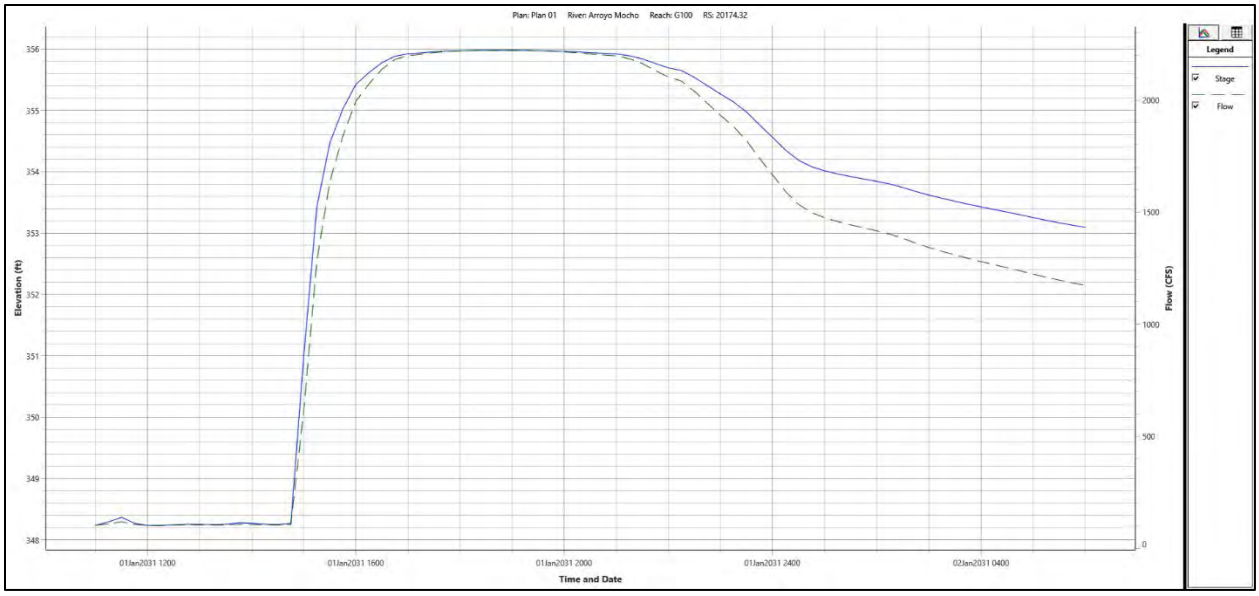


Figure 1: 100-year Flow Hydrograph for Existing Condition at Downstream.

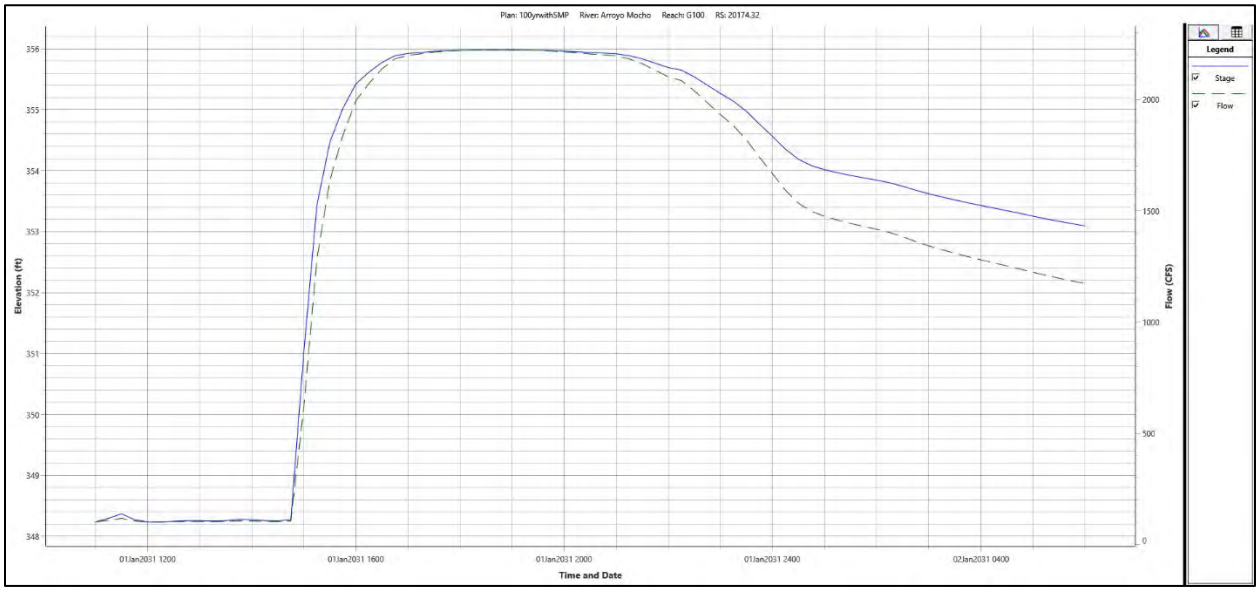


Figure 2: 100-year Flow Hydrograph of Proposed Conditions at Downstream.

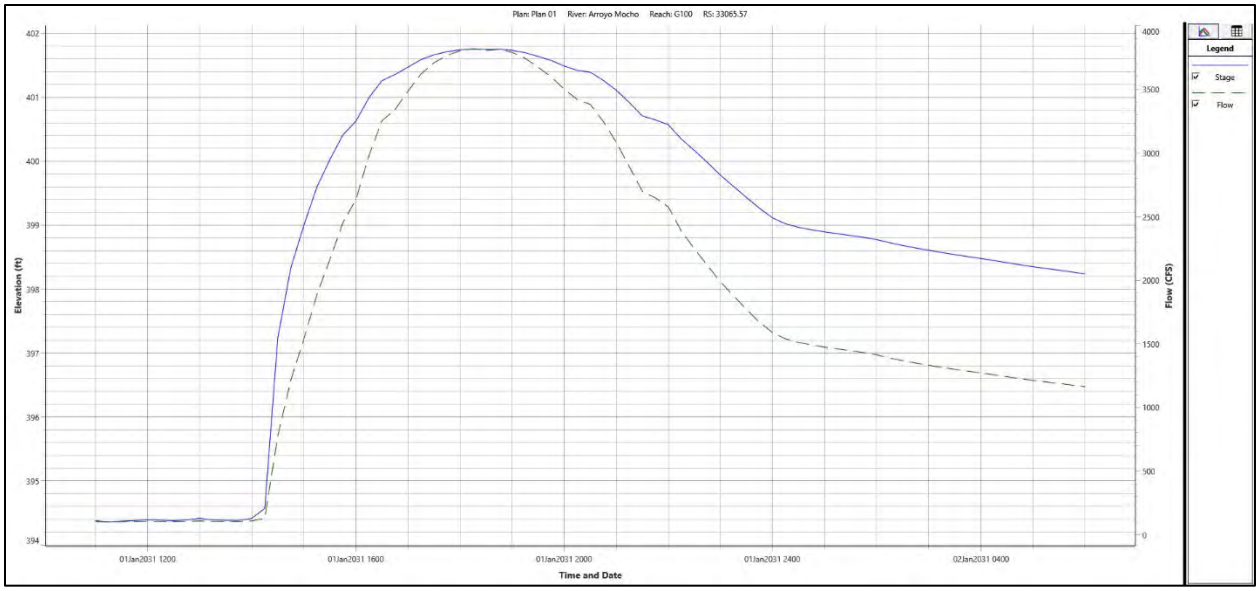


Figure 3: 100-year Flow Hydrograph for Existing Condition near Development.

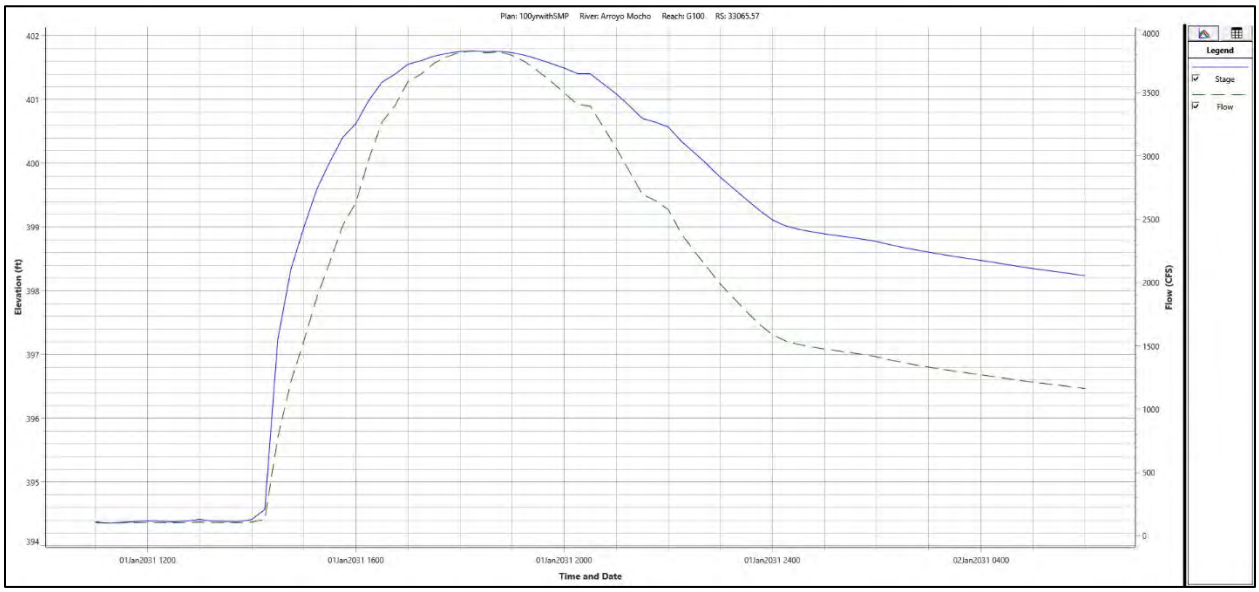


Figure 4: 100-year Flow Hydrograph of Proposed Conditions near Development.

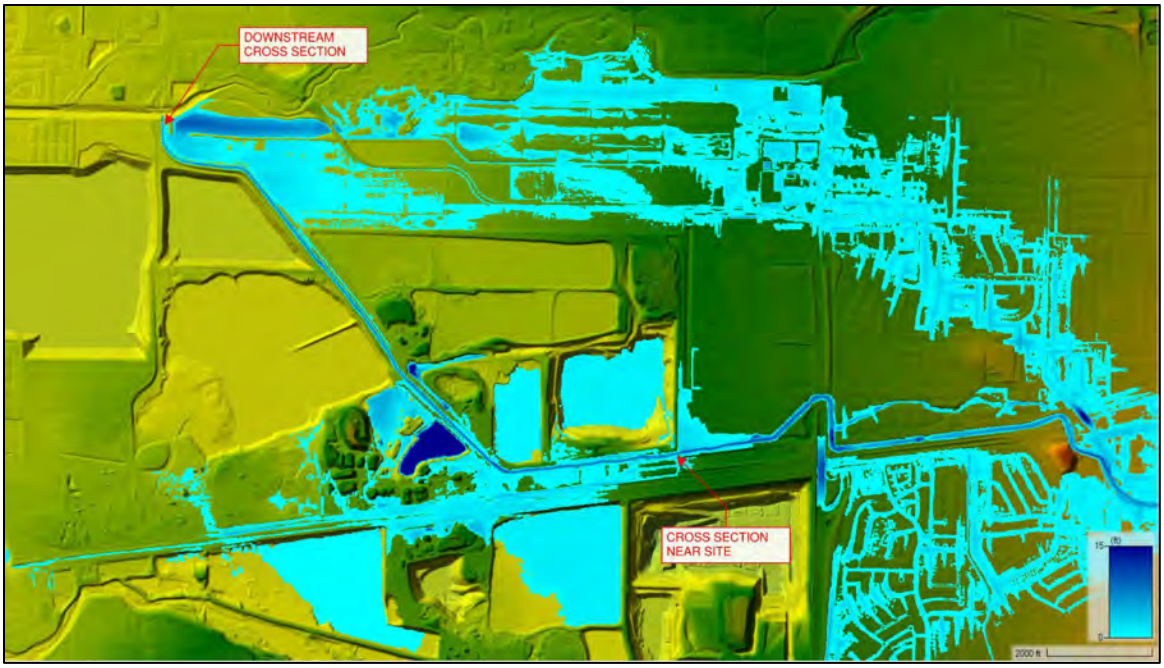


Figure 5: 100-year floodplain for Existing Conditions.

Figure 6: 100-year Floodplain with Proposed Development.

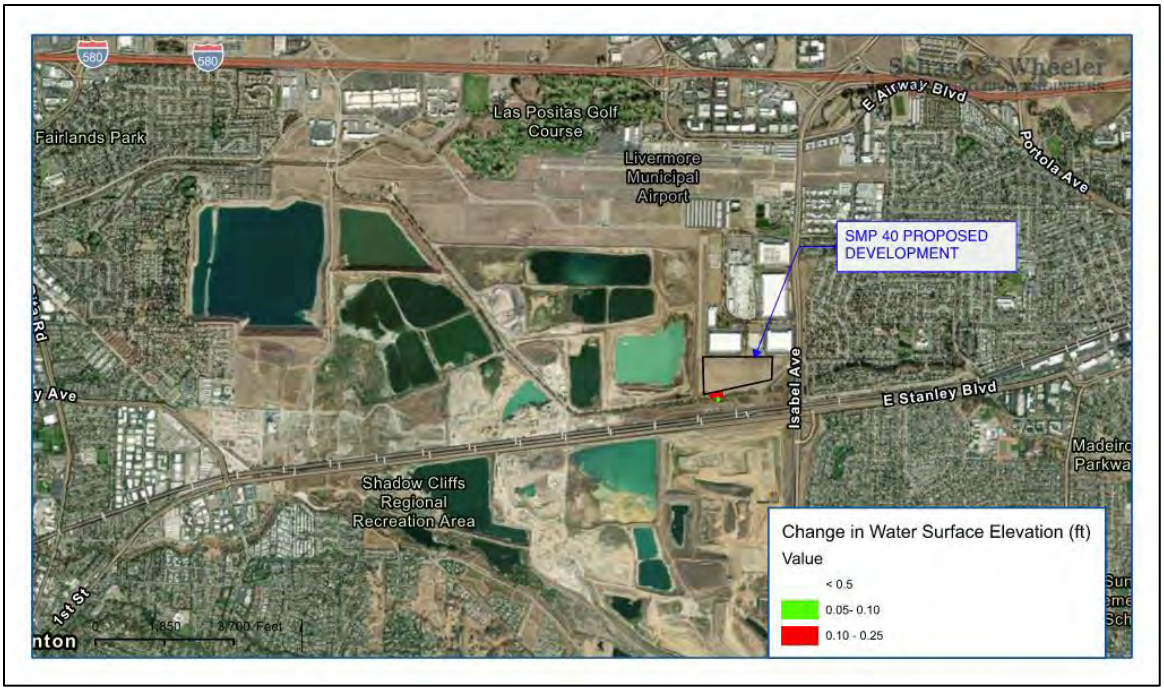


Figure 7: 100-year Existing versus Proposed Water Surface Elevation.

SMP 39/SMP 40 Project
Supplemental Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum

As mentioned in the memorandum entitled, "Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum", the City would be following up with a supplemental memorandum to provide responses to the "Attorneys for Carpenters Local 713" letter, dated February 14, 2024, which was received after the release of the Final Environmental Impact Report (EIR) for the SMP 39/SMP 40 Project (proposed project). This supplemental memorandum provides the responses to the above-referenced letter.

While CEQA does not require that written responses be provided for letters received after the close of the public review period, the comments are acknowledged by the City, and the City has chosen to prepare written responses to the comments for the decision-makers consideration in making an informed decision. Responses to the "Attorneys for Carpenters Local 713" comment letter, which is included as Attachment 1, are provided below. Where revisions to the EIR text are required in response to a comment, new text is double underlined and deleted text is ~~struck through~~.

The comments received did not identify any new significant impact, substantial increase in severity of a significant impact identified in the EIR, or any significant new information. Therefore, recirculation of the EIR is not required.

Response to Stephanie Papayanis, Attorneys for Carpenters Local 713
The majority of the comment letter, including the entirety of Comment I and Comment II(A) of the comment letter, is identical to the comment letter submitted by Attorneys for Carpenters Local 713 during the Draft EIR comment period. As such, with regard to Comment I and Comment II(A) included in the comment letter, please see Responses to Comments 5-3 and 5-5 included in the Final EIR.

The new concerns brought forth in the comment letter are limited to Comment II(B) and Comment II(C) related to biological resources and construction noise. Thus, responses to Comment II(B) and Comment II(C) are provided below.

Comment II(B) Related to Biological Resources
Responses to the commenter's concerns regarding biological resources are provided below, as informed by Monk & Associates (M&A), who prepared the project-specific Biological Resources Assessments (BRAs) used within the Draft EIR analysis. It should be noted that Comment II(B) is a summary of the comments provided in Exhibit D to the Attorneys for Carpenters Local 713 comment letter, which is a letter authored by Shawn Smallwood, PhD. As such, the following responses are organized based on the comments presented in Exhibit D of the Attorneys for Carpenters Local 713 comment letter.

Environmental Setting Informed by Field Surveys
Page 16 of the Exhibit D comment letter states: "The results of the Monk and Associates (2021, 2023) surveys have been misinterpreted in the reports, resulting in inaccurate characterizations of the existing environmental settings of SMP 39 and SMP 40." The commenter is referring to the fact that M&A biologists recorded fewer bird species on-site and flying overhead than the commenter did during a reconnaissance visit. The environmental setting or environmental

baseline of a project site is informed by much more than the number of birds and mammals one sees in a certain amount of time.

The CEQA Guidelines Section 15125(a) requires that the CEQA document prepared for a project discuss the "baseline" environmental conditions at and in the vicinity of the project sites. CEQA Guidelines Section 15125 (see also Section 15126.6(e)(2)) states the following regarding the environmental setting as it relates to baseline:

> (a) [the CEQA review document] must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to understanding the significant effects of the proposed project.

M&A conducted several surveys on each of the project sites. As explained in the SMP 39 BRA included as Appendix D to the Draft EIR, M&A survey work in the project area dates to the year 2000. However, because CEQA requires current baseline conditions, none of the plants or wildlife observed in the early 2000s were reported in the BRAs. The 2021 surveys are the baseline surveys that were conducted to record existing biological resources and to assess the likelihood of resource agency regulated areas on the project sites. The surveys involved searching all habitats on the sites and recording all plant and wildlife species observed. M&A cross-referenced the habitats found on the project sites against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species and if additional protocol level surveys would be necessary to assess potential impacts to special status species.

CEQA does not require an exhaustive list of all bird species that could occur on a project site, nor does CEQA require a discussion of what each species is doing at the time the species is observed. Rather, CEQA requires an analysis of potential impacts to special-status birds and/or nesting habitat for common birds that rise to the level of significance pursuant to CEQA as determined by an expert, based on database searches, field surveys, etc. M&A's BRAs provide that analysis and recommend pre-construction surveys to address potentially significant impacts. Overall, the BRAs meet the standards of care warranted under CEQA.

Habitat Loss

The commenter's estimate on the number of birds "denied to California" is primarily based on two studies. The commenter states that the two study sites have grassland/wetland/woodland complexes within agricultural matrices, and found total bird nesting densities of 32.8 and 35.8 nests per acre. The commenter uses one-third of such estimates for the project sites' calculation due to the annual discing that occurs on the project sites. However, the estimation is likely still an overestimate, as one study was conducted in a five-acre, undisturbed, unfragmented and preserved area within the over-500-acre University of Wisconsin Arboretum dedicated in 1934, adjacent to a 321-acre lake (Lake Wingra). The SMP 39 and SMP 40 project sites are not surrounded by hundreds of acres of preserved natural lands but rather the relatively small project sites are fragmented from natural areas by surrounding, existing development (busy roads, an airport, and active industrial uses).

The other study mentioned by the commenter was conducted within farmstead shelterbelts, or "man-made habitats consisting of parallel rows of trees and shrubs designed to protect farmsteads from damaging winds, drifting snow and blowing soil…" referred to as "wooded

islands." The study determined that the wooded islands are important for avifauna in regions of intensive agriculture and found many nests within the wooded region. The SMP 40 project site has a similar "wooded island," in that the wooded area that is a riparian corridor along Arroyo Mocho is being preserved within a riparian set back and will provide high-quality habitat for many nesting birds post-development. The preservation of Arroyo Mocho's riparian habitat was not considered in the commenter's calculations.

Further, the commenter's comparison of development of the proposed project to the high avian mortality rate by wind turbine collision in the Altamont Pass Wind Resource Area is not an appropriate comparison. The commenter is comparing 50-foot-tall buildings on the project sites to 430-foot-tall wind turbines with active, moving blades in a known avian migration zone; an area that supports the highest number of nesting Golden Eagles in the world.[1]

Regardless of the commenter's inappropriate comparison and overestimate of the number of birds "denied to California" due the loss of nesting habitat by the proposed projects, CEQA requires an analysis of potential impacts to special-status birds and/or nesting habitat for common birds that raise to the level of significance. Therefore, impacts to nesting birds were regarded as significant pursuant to CEQA in the Draft EIR. However, mitigation measures to protect special-status birds and all nesting birds have been prescribed in the Draft EIR (see Mitigation Measures 4.3-2[a] through 4.3-2[d] in the Draft EIR). The mitigation measures included therein reduce impacts to nesting birds to a less-than-significant level pursuant to the CEQA. Thus, the commenter's concerns about the projects' impacts to nesting birds have been sufficiently addressed.

Interference with Wildlife Movement

The commenter is correct that the Essential Habitat Connectivity Area mapped by the California Department of Fish and Wildlife (CDFW) is focused on connecting very large blocks of mostly protected natural lands. While the Draft EIR does state that the project sites are not located in this mapped area, that is only one sentence of the three-paragraph description under the Wildlife Movement Corridor section of the Draft EIR (see pages 4.3-14 to 4.3-15 of the Draft EIR). The comment implies that sufficient research and in-person assessments were not conducted accordingly, and that the determination that the project sites will not impact significant wildlife corridors was solely based on using the CDFW's Essential Habitat Connectivity Area map, which simply is not true.

For example, M&A conducted online research and project-specific field surveys to become informed about the project sites' habitats and the potential for any impacts to regional wildlife corridors based on development of the proposed projects. M&A recorded wildlife observed during site visits, in addition to extensively noting the habitat types and surrounding land uses during their visits and how the surrounding land uses would affect wildlife movement. As such, the commenter's statement that the conclusions of the Draft EIR regarding wildlife movement on the project site are speculative and conclusory is untrue.

Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors are extremely important habitats to preserve and are valuable for wildlife. While local wildlife may use the undeveloped sites in their current state, neither of the project sites currently provide a significant regional wildlife corridor that may be impacted by the proposed project. The project sites are regularly disced or disturbed for agriculture. For SMP 40, an

[1] National Audubon Society. *National Audubon Society Sues California County to Improve Bird Protections in Controversial Wind Energy Project.* Available at: https://www.audubon.org/news/national-audubon-society-sues-california-county-improve-bird-protections#:~:text=17%2C%202021)%2D%2DThe%20National,turbine%20facility%20at%20Altamont%20Pass%2C. Accessed February 2024.

industrial development, Oaks Business Park, is located to the north of the project site, east of the project site is Isabel Avenue, a heavily-trafficked road, south is an active railroad track and Stanley Boulevard, another heavily-trafficked road, and west of the project site are quarry ponds. SMP 39 is bordered by West Jack London Boulevard, a well-trafficked road, the Livermore Municipal Airport, the Oaks Business Park, and quarry ponds. The quarry ponds were excavated in uplands and, thus, are not associated with a creek or drainage, and have nearly vertical slopes, preventing wildlife from traversing the ponds easily or using the quarry area as a corridor. As mentioned in M&A's BRAs, both SMP 39 and SMP 40 are isolated from regional open spaces, and, as such, do not have regional wildlife corridor value for terrestrial mammals and contain minimal habitat that could be used by some migrating avian species.

The commenter states: "On the other hand, the coyote I saw on site got there somehow, and so did the ground squirrels and pocket gophers, and so did all of the birds I saw on and over SMP 39." One might infer from this statement that M&A's reports and the Draft EIR implied that wildlife do not use, or could not be found on the project sites, which is incorrect. Each of M&A's BRAs included a table of wildlife species observed on the project sites during site visits, which, as described in the BRAs, is not intended to be exhaustive or to describe the only species that could be found on the project sites. Rather, the focus was, as required by CEQA and as appropriate, on the assessment of biological resources with regard to suitable habitat and potential for the occurrence of any special-status species, as determined by a qualified biologist for the purposes of an impact analysis. Movement of a species through an area or an area's incidental use does not necessarily imply importance to the species, the characteristics of the habitat are more relevant.

For example, Figure 3 of the commenter's report shows the fly over and resting locations of Golden Eagles, which provides an example of how local wildlife may use the project sites as well as all surrounding areas, including properties completely developed with warehouses and surrounded by busy roads. However, while species such as the Golden Eagle may use the project site for foraging or resting on occasion, or may flyover, it is clear that the project sites are not the main sites that are relied upon by these large raptors for any of the above functions, or for nesting, as the existing trees are too small and in close proximity to disturbance.

The SMP 40 riparian area may provide significantly more suitable rest, foraging and nesting habitat for many bird species than the open and disturbed grassland does. However, as previously described, the riparian area on SMP 40 will be completely preserved within a riparian setback and will continue to connect local wildlife within the riparian corridor along the Arroyo Mocho.

The commenter also mentions that 19 special-status species so far have been documented on the project site, as further detailed in Table 1 of the commenter's report. However, the commenter's list includes species that do not meet the definition of "rare" pursuant to the CEQA. For example, Table 1 includes Red-tailed Hawk (*Buteo jamaicensis*), California Gull (*Laus californicus*), Double-crested Cormorant (*Phalacrocorax auritus*), Nuttall's Woodpecker (*Picoides nuttallii*), and Oak Titmouse (*Baeolophus inornatus*), which are designated as Birds of Prey (BOP), Birds of Conservation Concern (BCC) by U.S. Fish and Wildlife Service, and Taxa to Watch List. However, the aforementioned listings are not considered special-status under the California or Federal Endangered Species Acts (CESA and FESA), by other regulations, or by the scientific community pursuant to the CEQA. Nonetheless, it should be noted that these species, their nests, eggs and/or young are provided protection pursuant to other resource agency regulations such as the Migratory Bird Treaty Act (MTBA) and the California Fish and Game Code Sections 3503, 3503.5, 3511, and 3513C, which are both fully accounted for and discussed in M&A's BRAs and the Draft EIR.

In addition, the commenter does not specify which of the 19 species were observed during his site visit, or which were taken as observations from eBird. While many experienced birders may use eBird, anyone can report incidental bird sightings to eBird without any way to confirm the qualifications of the observer. As such, relying only on eBird data to say confidently that a special-status species is present on a property is not sufficient and would need to be confirmed by a qualified biologist. As mentioned by the commenter, several of the species sightings are birds flying over the project sites. As discussed in sections above, observing sensitive birds flying over a property, foraging over the site, or using the habitat on the sites during the non-nesting season does not warrant reporting to the California Natural Diversity Database (CNDDB), as such sightings are not of permanent breeding/nesting/larval development habitat (dependent on what type of animal it is) that warrant protection. The types of "incidental" sightings of common bird species do not necessarily translate into a "potentially significant biological impact" pursuant to CEQA Guidelines and regulations.

Further, while the project sites in their current state may be used by local wildlife, they provide very low value for foraging, resting or nesting, as the project sites are mainly comprised of non-native ruderal herbaceous habitats and are highly disturbed due to agricultural practices. The project sites are not one of the last remaining stopover and staging opportunities in the region, as stated by the commenter, as acres of undeveloped land similar to the project sites is located within the very immediate area, as well as dozens of local parks. The 80-acre Shadow Cliffs Regional Recreation Area is less than two miles from the project sites and the 160-acre Doolan Canyon Regional Preserve beyond provides more undeveloped land to the north. All of the aforementioned habitats in the region provide habitat for the species listed in the table of wildlife observed included in Exhibit D of the comment letter, and have far greater wildlife corridor habitat value than the project sites. The commenter's concerns about the loss of the ruderal habitats on-site should be assuaged by the fact that more trees and shrubs will be planted on the project sites post-development than are currently on site, which will provide additional stopover opportunities for birds.

Finally, as previously mentioned, the Arroyo Mocho runs along the southern project site boundary of SMP 40. Arroyo Mocho may serve as a local movement corridor for mammals, amphibians, and reptiles to move unobtrusively through the general geographic area. Animals moving along Arroyo Mocho could leave the Arroyo and enter the project site to move across the landscape. Such animals expected to migrate along the Arroyo and possibly enter the upland areas of the project site are common species such as coyote, raccoons, skunks, deer, and rodents, and would be able to navigate their way around SMP 40 even after the site was developed. The Arroyo Mocho would remain unchanged by the proposed project and as such, the wildlife corridor values of the channel would remain intact. Under all circumstances, any disruption to the very localized use of the project sites by common wildlife species would not be regarded as a potentially significant impact pursuant to CEQA.

Traffic Impacts to Wildlife

Common wildlife associated with humans and urban development such as Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*) and raccoon (*Procyon lotor*) are often involved in vehicle collisions. However, the aforementioned species and other common wildlife species, including Mourning Dove (*Zenaida macroura*) and northern pacific rattlesnake (*Crotalus oreganus*), are not considered special-status or rare. In addition, while roadkill is present in the vicinity of the project sites, as is the case at any area with road traffic, the approximation included in Exhibit D of the comment letter is likely an overestimate, as the numbers are based on another study that is not directly comparable to the project area. Vasco Road is the principal north-south route between eastern Alameda and Contra Costa Counties, traveled by approximately 22,000 vehicles per day. Increased traffic to the project sites on local roadways, Isabel Avenue and West

Jack London Boulevard, is not comparable to the heavily trafficked Vasco Road, which is a corridor in the middle of hundreds of acres of protected open space lands and significant wildlife habitat. By contrast, Stanley Boulevard and I-580, near the project sites, are already heavily trafficked roads in a developed region and the increase in vehicles associated with the project sites would not contribute significantly to the existing traffic volumes on these roads daily. Moreover, regulations that protect common wildlife species that could be killed by vehicular traffic do not exist. As such, vehicle collisions that result in the mortality of wildlife do not constitute a significant impact pursuant to CEQA.

Western Burrowing Owl Mitigation

The CDFW has not released an official statement that the avian breeding season has changed. In M&A's experience, when permits are acquired from the CDFW, the nesting season window can vary slightly. Some permits say February 1 through August 31, while others say February 15 through September 1. The variation in start and end dates could be based on geography, as different geographic regions have slightly different nesting windows. In fact, the CDFW acknowledges a certain amount of variation in the 2012 CDFW Staff Report on Burrowing Owl Mitigation, which states, "In California, the burrowing owl breeding season extends from 1 February to 31 August (Haug et al. 1993, Thompsen 1971) with some variances by geographic location and climatic conditions." Nonetheless, in response to the comment, Mitigation Measure 4.3-2(a) included in the Draft EIR is hereby revised as follows:

Western Burrowing Owl

4.3-2(a) *If project construction begins during the western burrowing owl nesting season (February 1~~5~~ to August 31), a qualified biologist shall conduct targeted burrowing owl nest surveys within 14 days prior to construction activities using seven- to 20-foot transects. A separate preconstruction survey shall be conducted for SMP 39 and SMP 40 (including the off-site trail connection area) if the components of the project are not constructed concurrently. The survey shall include the project site and all accessible areas within 500 feet of the project impact zone, and shall follow CDFW guidelines outlined in the 2012 Staff Report on Burrowing Owl Mitigation. The results of the survey shall be submitted to the City of Livermore Community Development Department within 30 days of the completed survey. The survey report shall be valid for one construction season.*

If western burrowing owls are not detected on-site during the survey, further mitigation shall not be required. If any western burrowing owls are detected on-site, pursuant to the CDFW's 2012 Staff Report on Burrowing Owl Mitigation, the following restricted activity dates and setback distances shall be implemented:

- *From April 1 through October 15, low disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests.*
- *From April 1 through August 15, medium disturbance activities shall have a 500-meter buffer from occupied nests. Medium disturbance activities can have a reduced buffer of 200 meters starting August 16 through October 15.*
- *From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests.*
- *Earth-moving activities or other disturbance shall not occur within the aforementioned buffer zones of occupied burrows*

unless monitoring of the nest site by a qualified biologist determines that the owls are acclimated to the disturbance and would not be disturbed by a smaller buffer. The buffer zones shall be fenced.

- *A qualified biologist shall delineate the extent of burrowing owl habitat on the site.*
- *Owls may be passively relocated from the project site between October 1 and February 1. Passive removal shall be conducted by a qualified biologist with demonstrated experience with passive relocation.*
- *Credits shall be purchased from a mitigation bank in coordination with CDFW and the City of Livermore to offset the project's habitat loss on the burrowing owl.*

A report detailing compliance with the provisions set forth herein shall be prepared by the qualified biologist and submitted for review and approval to the City of Livermore Community Development Department.

Further, M&A biologists have conducted several surveys, some of which are dated October 2000; March 11, 2002; May 11 and 20, 2002; June 14 and 25, 2002; September 2003, November 2013, June 10, 2019, November 2019, September 10, 2021, November 13, 2021, and June 15, 2022. The aforementioned surveys conducted in May and June were focused Burrowing Owl breeding season surveys conducted in accordance with the CDFW 1995 Staff Report protocol. Burrowing owl, or signs of burrowing owl, were not observed during any of the M&A surveys. Thus, based upon M&A's multiple surveys of the project site spanning multiple years, evidence suggests that burrowing owls have not nested on-site for the following reasons: (1) the grass grows very tall on SMP 40 in between discing activities, which does not allow ground nesting birds, such as the burrowing owl, an opportunity to detect aerial predators, which likely discourages them from nesting; (2) discing activities may disrupt nesting attempts.

Based on habitat assessments and past negative survey results, M&A believes that burrowing owls are unlikely to nest on-site. However, given that the burrowing owl is a mobile species, a mitigation measure for preconstruction surveys was provided in the Draft EIR to ensure that "take" of burrowing owls does not occur. The prescribed preconstruction surveys, consistent with "take avoidance surveys" outlined in the CDFW's Staff Report 2012, are sufficient and appropriate to detect nesting owls should the species be present on-site in light of the prior surveys' negative results, including a year of protocol-level breeding season surveys. Burrowing owls residing in topographically flat areas are typically easy to detect if surveys consist of walking transects using high-powered binoculars. As such, the mitigation measure included in the Draft EIR is sufficient to reduce any potential project impacts on burrowing owl to a less-than-significant level.

Tricolored Blackbird Mitigation

As stated above, M&A biologists have been on both project sites multiple times over the last 20 years. Tricolored blackbirds have not been observed on-site and on-site habitat for the species is marginal, as the sites are routinely disturbed, water is not present on SMP 39, and Arroyo Mocho at SMP 40 is typically dry during the middle to end of the nesting season. The tricolored blackbird prefers nesting near water. The preconstruction surveys proposed in the Draft EIR to determine if tricolored blackbird is nesting on-site are sufficient to detect the species' presence. The species can also be looked for during the burrowing owl surveys, which will take place at the same time as tricolored blackbird nesting season.

Nesting Bird and Raptor Mitigation
As discussed above, the CDFW has not released an official statement that the avian breeding season has changed. In M&A's experience when permits are acquired from the CDFW, the nesting season window can vary slightly, as different geographic regions have slightly different nesting windows.

In addition, with regard to nest detection, while grassland nesting birds are difficult to detect, M&A biologists are experienced in surveying for ground-nesting and short grass nesting birds and have had success finding nests in the past. Typically, if pedestrian walking transect surveys are conducted by two or more people walking closely together, nests will be found. Further, if experienced consulting biologists are hired to conduct the nesting bird surveys, the biologists will know the appropriate methods to survey for nesting passerine birds, including the Loggerhead Shrike, and raptors. The most suitable habitat for Loggerhead Shrike on the project sites is along SMP 40's riparian corridor, which will be preserved by the project. Many trees along the riparian corridor and south of the project site could serve as a blind for the observer to hide behind and watch bird behavior to determine if birds are nesting. Finally, the qualified biologist making the nesting buffer determination would provide a report to the City of Livermore and communication between the City of Livermore, the applicant's biologist, and the construction team would be ongoing throughout the construction period. The biologist will ensure that the buffer is maintained throughout construction to ensure that the nesting attempt is protected.

While development does remove potential bird nesting habitat, the project applicant is avoiding the riparian corridor on the SMP 40 project site, which is the most valuable nesting habitat on-site. Additionally, in accordance with City of Livermore General Plan Policy OSC-1.3 P1, as presented on page 4.3-21 of the Draft EIR, the proposed project is required to landscape with native vegetation.

Based on the above, changes to the Draft EIR mitigation for nesting birds and raptors are not warranted.

<u>Comment II(C) Related to Construction Noise</u>
As discussed on page 4.6-21 of the Draft EIR, due to the substantial distance between SMP 39 and the sensitive noise receptors, it was anticipated, based on the professional judgment of the project noise consultant, that construction noise associated with SMP 39 would be below the City of Livermore's exterior noise level threshold at the nearest sensitive receptor locations. In response to the comments regarding construction noise impacts associated with SMP 39, Salter, the project noise consultant who prepared the project-specific Environmental Noise Studies used in the Draft EIR analysis, estimated the construction noise levels associated with SMP 39 at the nearest noise sensitive receptor to the site (see Attachment 2). In addition, in response to the comments regarding construction noise impacts associated with SMP 40, Salter provided an updated analysis of construction noise associated with SMP 40 (see Attachment 3). Because construction is not permitted during nighttime hours (pursuant to Section 9.36.080 of the Livermore Municipal Code), the applicable noise level threshold for construction noise levels associated with SMP 39 and SMP 40 would be 70 dBA L_{max}, as established by the City of Livermore (see Draft EIR page 4.6-14 and General Plan Policy N-1.5 P3).

The commenter alleges that Table 9-7, Land Use Compatibility Guidelines for Exterior Noise, of the General Plan applies to construction noise; this is not correct. As stated in General Plan Policy N-1.1 P4, presented on page 4.6-8 of the Draft EIR, the City shall use the Land Use Compatibility Guidelines for Exterior Noise (measured in dBA CNEL or L_{dn}) contained in Table 9-7 (i.e., the DNL 60 dBA exterior noise level standard referenced in the comment letter) to direct the siting, design, and insulation of new development to reduce exposure to excessive noise. Construction

noise standards are established in General Plan Policies N-1.5 P2, P3, and P4, as presented on page 4.6-12 of the Draft EIR, which do not include a DNL standard. In particular, General Plan Policy N-1.5 P3 states that in order to allow for temporary construction, demolition or maintenance noise and other necessary short-term noise events, the stationary noise standards in Policy N-1.5.P1 shall not be exceeded within the receiving land use by more than 15 dBA for any period of time. General Plan Policy N-1.5.P1 requires that industrial and commercial uses be designed and operated so as to avoid the generation of noise effects on surrounding sensitive land uses from exceeding 55 dBA L_{50} during the hours of 7:00 AM to 10:00 PM and 45 dBA L_{50} during the hours of 10:00 PM to 7:00 AM. Thus, for analysis purposes of project construction noise within the Draft EIR, the threshold of significance for the maximum allowable construction noise level at a sensitive receptor is 70 dB L_{max} during daytime hours and 60 dB L_{max} during nighttime hours (i.e., 15 dB above the numerical criteria listed in P1). Consequently, the DNL 60 dBA exterior noise level standard included in the comment letter would not apply to the temporary, intermittent construction noise associated with either SMP 39 or SMP 40.

Based on the comments regarding construction noise impacts associated with SMP 39 and SMP 40, pages 4.6-21 through 4.6-24 of the Draft EIR are hereby revised as follows. Such revisions are also reflected in the Revised Environmental Noise Studies for SMP 39 and SMP 40, included as Attachment 2 and Attachment 3 to this memo. It should be noted that all revisions to pages 4.6-22 through 4.6-24 of the Draft EIR previously included in the Final EIR are also shown in ~~strikethrough~~ and <u>double underlined</u> text below.

> ~~Due to the substantial distance between SMP 39 and the sensitive noise receptors, it was anticipated that~~ <u>The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction. Table 4.6-6 shows maximum noise levels associated with each piece of construction equipment anticipated to be used during construction of SMP 39 at a reference level of 50 feet, as well as at 2,640 feet, which is the distance from Building 1 on the SMP 39 site to the nearest sensitive receptors (the residences located across Isabel Avenue to the east). Based on the project-specific construction schedule assumed in the air quality analysis conducted for SMP 39, Table 4.6-7 summarizes the anticipated construction equipment associated with each phase of project construction, and the relative sound levels at the nearest residential property (approximately 2,640 feet away), assuming that equipment is running simultaneously during each phase of construction. As shown in Table 4.6-7,</u> construction noise associated with SMP 39 <u>would range between 59 and 61 dBA L_{max},</u> ~~be~~ <u>which would be</u> below the City of Livermore's exterior noise level threshold of ~~60~~ <u>70</u> dBA ~~DNL~~ <u>L_{max}</u> at the nearest sensitive receptor locations. ~~Thus, construction noise levels for SMP 39 were not evaluated as part of the Environmental Noise Study prepared for SMP 39. Therefore, the following discussion focuses on SMP 40 and the off-site trail connections.~~

Table 4.6-6
Typical Construction Equipment Noise at SMP 39

Equipment	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 50 feet)	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 2,640 feet)
Aerial Lift	83	49
Air Compressors	81	47
Cement and Mortar Mixers	85	51
Concrete/Industrial Saws	76	42
Cranes	83	49
Drill Rig of Shoring Beams (Caisson Drilling)	85	51
Excavators	85	51
Forklifts	83	49
Generator Sets	81	47
Graders	85	51
Paving Equipment	89	55
Rollers	74	40
Rubber-Tired Dozers	85	51
Tractors/Welders/Backhoes	84	50
Welders	73	39

Source: Salter, 2024.

Table 4.6-7
Construction Equipment Noise Levels at Nearest Receptor – SMP 39

Offroad Equipment Type	Amount	Usage Hours	Resulting L_{max}
Grading			
Excavators	2	8	54
Graders	1	8	51
Rubber Tired Dozers	1	8	51
Scrapers	2	8	54
Tractors/ Loaders/ Backhoes	2	8	53
All Grading Equipment Running Simultaneously			**60**
Paving			
Pavers	2	8	58
Paving Equipment	2	8	58
Rollers	2	8	43
All Paving Equipment Running Simultaneously			**61**
Building Construction			
Cranes	1	7	49
Forklifts	3	8	54
Generator Sets	1	8	47
Tractors/ Loaders/ Backhoes	3	7	56
Welders	1	8	39
All Building Construction Equipment Running Simultaneously			**59**
Architectural Coating			
Air Compressors	1	8	47

Source: Salter, 2024.

~~The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction.~~ Table 4.6-~~6~~ 8 shows maximum noise levels associated with ~~typical~~ each piece of construction equipment anticipated to be used during construction of SMP 40 at a reference level of 50 feet, as well as at ~~884~~ 600 feet, which is the distance from the ~~proposed Building~~

~~2 on~~ northeast corner of the SMP 40 site to the nearest residences across Isabel Avenue/SR 84. Based on the project-specific construction schedule assumed in the air quality analysis conducted for SMP 40, Table 4.6-9 summarizes the anticipated construction equipment associated with each phase of project construction, and the relative sound levels at the nearest residential property (approximately 600 feet away), assuming that equipment is running simultaneously during each phase of construction.

Table 4.6-~~6~~ 8
Typical Construction Equipment Noise at SMP 40

Equipment	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 50 feet)	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at ~~884~~ 600 feet)
~~Demolition~~		
Concrete/Industrial Saw	76	~~19~~ 54
Excavators	85	~~28~~ 63
Rubber-Tired Dozer	85	~~28~~ 63
Tractor/Loader/Backhoe	84	~~27~~62
~~Site Preparation~~		
Grader	85	~~28~~ 63
~~Rubber-Tired Dozer~~	~~85~~	~~28~~
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~
~~Grading/Excavation~~		
Drill Rig for Shoring Beams (Caisson Drilling)	85	~~28~~ 63
~~Excavators~~	~~85~~	~~28~~
~~Rubber-Tired Dozer~~	~~85~~	~~28~~
~~Tractor/Loader/ Backhoe~~	~~84~~	~~27~~
~~Trenching~~		
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~
~~Excavators~~	~~85~~	~~28~~
~~Building Exterior Construction~~		
Crane	83	~~26~~ 61
Fork Lift	83	~~26~~ 61
Generator Sets	81	~~24~~ 59
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~
Welders	73	~~16~~ 51
~~Building Interior Construction/Architectural Coating~~		
Aerial Lift	83	~~26~~ 61
Air Compressors	81	~~24~~ 59
~~Paving/Landscaping/Site Concrete~~		
Cement and Mortar Mixers	85	~~28~~ 63
Paving Equipment	89	~~32~~ 67
Rollers	74	~~17~~ 52
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~

Source: Salter, ~~2023~~ 2024.

Table 4.6-9
Construction Equipment Noise Levels at Nearest Receptor – SMP 40

Offroad Equipment Type	Amount	Usage Hours	Resulting L_{max}
Grading			
Excavators	2	8	66
Graders	1	8	63
Rubber Tired Dozers	1	8	63
Scrapers	2	8	66
Tractors/ Loaders/ Backhoes	2	8	65
All Grading Equipment Running Simultaneously			**72**
Paving			
Pavers	2	8	70
Paving Equipment	2	8	70
Rollers	2	8	55
All Paving Equipment Running Simultaneously			**73**
Building Construction			
Cranes	1	7	61
Forklifts	3	8	66
Generator Sets	1	8	59
Tractors/ Loaders/ Backhoes	3	7	67
Welders	1	8	51
All Building Construction Equipment Running Simultaneously			**70**
Architectural Coating			
Air Compressors	1	8	59

Source: Salter, 2024.

As shown in ~~the table~~ Table 4.6-7, construction of SMP 40 is predicted to generate noise levels ranging between ~~16~~ 70 to ~~32~~ 73 dBA L_{max} at the nearest noise-sensitive receptors. As discussed in detail above, for analysis purposes of project construction noise within this EIR, a threshold of significance for the maximum allowable construction noise level at a sensitive receptor has been assumed to be 70 dB L_{max} during daytime hours ~~and 60 dB L_{max} during nighttime hours~~. Because construction is not permitted during nighttime hours (pursuant to Section 9.36.080 of the Livermore Municipal Code), the 60 dB L_{max} noise level standard for nighttime hours would not apply to the proposed project. ~~Accordingly~~ Nonetheless, the maximum predicted construction noise level of ~~32~~ 73 dBA L_{max} associated with SMP 40 would be ~~below~~ above the threshold~~s~~ of significance being applied.

The three potential off-site trail connection options would be located approximately 160 feet, 150 feet, and 200 feet, respectively, west of the nearest single-family residences. The anticipated construction activities required for the trail connection options would use construction equipment anticipated to generate maximum noise levels of up to 85 dB at a distance of 50 feet. As previously noted, stationary noise sources lessen at a rate of approximately six dB per doubling of distance from the source. Therefore, at a distance of 160 feet, construction equipment associated with Trail Connection Option 1 would generate maximum noise levels of up to 75 dB L_{max}; at a distance of 150 feet, construction equipment associated with Trail Connection Option 2 would generate maximum noise levels of up to 76 dB L_{max}; and at a distance of 200 feet, construction equipment associated with Trail Connection Option 3 would generate maximum noise levels of up to 73 dB L_{max}. Thus, construction activities associated with development of the off-site trail connection options would exceed the thresholds of significance being applied of 70 dB L_{max} during daytime hours ~~and 60 dB L_{max} during nighttime hours~~.

Based on the above, construction-related noise associated with SMP 39 ~~and SMP 40~~ would not result in the generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local

general plan or noise ordinance, or applicable standards of other agencies. However, while construction activities are temporary in nature and would be exempt during the hours of 7:00 AM to 8:00 PM, construction-related noise associated with SMP 40 and the off-site trail connection could result in disturbance to existing noise-sensitive land uses in the project vicinity.

Therefore, construction-related noise associated with the proposed project could be considered to result in generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and impacts would be considered ***significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.6-1(a) *Prior to issuance of a grading permit for SMP 40, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included within the plans and specifications for SMP 40, subject to review and approval by the City of Livermore Community Development Department. The project applicant shall demonstrate, to the satisfaction of the City that the project complies with the following:*

- *Consistent with the Livermore Municipal Code, construction shall be limited to weekdays between the hours of 7:00 AM and 8:00 PM and Saturdays through Sunday between the hours of 9:00 AM and 6:00 PM.*
- *Either a temporary noise barrier shall be built prior to development of the planned berm on the east side of the project site, or the berm shall be built prior to construction activities. The barrier/berm shall be a minimum of 10 feet tall. The barrier can be field-built provided it meets the following criteria:*
  - *The barrier shall be constructed to have a minimum surface density of four pounds per square foot (psf). For example, a stud wall with exterior-grade plywood sheathing and a stucco finish (or two layers of 5/8-inch thick plywood).*
  - *The barrier shall be free of cracks, and drainage holes/slots along the bottom of the barrier shall be kept to a minimum. Where needed, drainage holes/slots shall be covered by one psf mass-loaded vinyl flaps (e.g., Kinetics KNM-100) so water can flow around the vinyl and still drain.*
  - *Joints between sheathing layers shall be offset by 16 inches minimum.*
- *Contractors shall use "quiet" models of air compressors and other stationary noise sources, where technology exists.*
- *Internal combustion engine-driven equipment shall be equipped with mufflers which are in good condition and appropriate for the equipment.*
- *Stationary noise-generating equipment, such as air compressors and portable power generators, shall be located as far away as possible from adjacent property lines.*

- *Staging areas and construction material areas shall be located as far away as feasible from adjacent residences.*
- *All unnecessary idling of internal combustion engines should be prohibited.*
- *The contractor shall designate a "noise disturbance construction superintendent" who will be responsible for tracking and responding to any complaints about construction noise. The noise disturbance construction superintendent shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall require that reasonable measures are implemented to correct the problem. The telephone number for the noise disturbance construction superintendent shall be posted at the construction site and included in any construction notices sent to neighbors.*

4.6-1(b) *Prior to issuance of a grading permit for the chosen off-site trail connection option, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included within the plans and specifications for the trail connection option, subject to review and approval by the City of Livermore Community Development Department. The project applicant shall demonstrate, to the satisfaction of the City that the project complies with the following:*

- *All heavy construction equipment used on the proposed project shall be maintained in good operating condition, with all internal combustion, engine-driven equipment fitted with intake and exhaust mufflers that are in good condition.*
- *All mobile or fixed noise producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency shall comply with such regulations while ~~in the source of~~ involved with a project activity.*
- *Where feasible, electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment.*
- *All stationary noise-generating equipment shall be located as far away as possible from the nearest residential uses.*
- *Signs prohibiting unnecessary idling of internal combustion engines shall be posted at entrances to construction sites and at construction equipment staging areas.*
- *The use of noise-producing signals, including horns, whistles, alarms and bells shall be for safety warning purposes only.*
- *The use of temporary sound barriers shall be incorporated along the outer work area of the construction site, east of Isabel Avenue/SR 84. Barrier height and location(s) shall be determined by a qualified acoustical engineer to ensure that the resultant construction noise levels at the nearest residence would meet the applicable standard. The sound barrier fencing shall consist of 0.5-inch plywood or minimum STC 27 sound curtains placed to shield nearby sensitive receptors. The plywood barrier shall be free from gaps, openings, or penetrations to ensure maximum performance.*

Due to the addition of Table 4.6-7, all subsequent tables included in Chapter 4.6, Noise, of the Draft EIR are hereby renumbered accordingly.

While a new mitigation measure (Mitigation Measure 4.6-1[a]) has been added as part of the text revisions above, under *Laurel Heights Improvement Ass'n v Regents of Univ. of Cal.* (1993) 6 C4th 1112 (*Laurel Heights II*) and Section 15088.5 of the State CEQA Guidelines,[2] a lead agency is only required to recirculate a draft EIR when "significant new information" is added to the document after public notice is given of the availability of the Draft EIR for public review under Section 15087 but before certification. Pursuant to CEQA Guidelines Section 15088.5, the term "information" can include changes in the project or environmental setting, as well as additional data or other information. New information added to an EIR is not considered "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the City has decided not to implement. "Significant new information" requiring recirculation includes any of the following:

1. A new significant environmental impact would result from the project or for a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from other previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
4. The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

In the case of the proposed project, the Draft EIR already determined that the proposed project would result in a significant temporary construction noise impact (see page 4.6-23 of the Draft EIR). Thus, a new noise impact has not been identified in response to public comments. Rather, in response to public comments, a new construction noise mitigation measure (Mitigation Measure 4.6-1[a]) has been added that would clearly lessen the potential environmental impact to a less-than-significant level, and the applicant has agreed to adopt Mitigation Measure 4.6-1(a). In addition, the requirements of Mitigation Measure 4.6-1(a) are similar to the requirements already included in Mitigation Measure 4.6-1 of the Draft EIR. Thus, according to Section 15188.5(a)(3), recirculation is not required.

The Mitigation Monitoring and Reporting Program, as well as the Findings, Facts in Support Of Findings, and Statement Of Overriding Considerations, will be updated in accordance with the changes shown above and included in the staff report packet for the City Council hearing on the proposed project.

Attachments
Attachment 1 – Attorneys for Carpenters Local 713 Comment Letter
Attachment 2 – SMP 39 Revised Environmental Noise Study
Attachment 3 – SMP 40 Revised Environmental Noise Study

[2] Stephen L. Kostka and Michael H. Zischke. *Practice Under the California Environmental Quality Act, Second Edition, March 2022 Update, Volume 2*. March 2022, pg. 16-21.

Attachment 1

Attorneys for Carpenters Local 713 Comment Letter

VIA E-MAIL

February 14, 2024

Ashley Vera, Associate Planner
City of Livermore
1052 S. Livermore Avenue
Livermore, CA 94550
Em: Asvera@livermoreca.gov

RE: City of Livermore's SMP 39 and 40 Planning Commission Meeting

Dear Ashley Vera,

On behalf of "**Carpenters Local 713**", my Office is submitting these comments for the City of Livermore's ("**City**") Draft Environmental Impact Report ("**Draft EIR**" or "**DEIR**") and Final Environmental Impact Report ("**Final EIR**" or "**FEIR**") for the **February 20, 2024 Planning Commission Meeting** for the SMP 39 and 40 Project ("**Project**").

According to the Project's Notice of Availability ("**NOA**") of a Draft EIR Project Description:

> "On **SMP 38**, the proposed project includes a Sphere of Influence (SOI) Amendment to **include** SMP 38 within the **City of Livermore** SOI and **remove** it from the **City of Pleasanton's** SOI. The City of Livermore General Plan land use designation for SMP 38 would remain Limited Agriculture and Open Space/Sand and Gravel and the Alameda County zoning designation would remain Agriculture. **Development of SMP 38** is **not proposed**.
>
> For **SMP 39**, the proposed project would include development of a total of **up to six light industrial buildings**, consisting of **up to approximately 755,500 square feet** (sf) of new building space, and associated **internal roadways** and **other** improvements. **For SMP 40**, the proposed project would include development of **two industrial**

buildings containing up to **759,275 sf of new building space** with related **internal roadways** and **other** improvements. A number of approvals would be required for development of SMP 39 and SMP 40, including a **SOI Amendment for SMP 39**, **General Plan Amendment**, **Pre-zoning** and **Annexation**, **Zoning Map Amendment**/Planned Development, Vesting Tentative Subdivision **Maps**, a **Pre-Annexation Agreement**, and **Development Agreement**. A **Site Plan Design Review** entitlement is required for SMP 39 and SMP 40, which would include a review of the site plan, building, and landscape design; however, the entitlement is **only proposed for SMP 40 at this time**. A Site Plan Design Review entitlement will be required **at a later date** for the future development of **SMP 39**. In addition, the proposed project would include **annexation of four additional parcels** (APNs 904-10-2-3, -5, -7, and -8) located **east of SMP 40**. Development is **not proposed** on the additional parcels **as part** of the proposed project.

The project would include a **paved at-grade, on-site trail along the boundaries** of the SMP 40 site, consistent with the City's Active Transportation Plan. Specifically, the on-site trail would extend from the northeastern corner of the site, along the project site's eastern, southern, and western boundaries, before connecting to an existing off-site paved shared-use path at the northwestern corner of site, which extends along the west side of the Oaks Business Park to the north and connects to West Jack London Boulevard.

In addition, the project would include a **new off-site connection to the existing Arroyo Mocho Trail**, located on the east side of Isabel Avenue/SR 84. For the purposes of the Draft EIR analysis, three alternatives for the proposed off-site Isabel Avenue/SR 84 crossing to the existing Arroyo Mocho Trail are considered and evaluated in the Draft EIR, including the following, and described in more detail in the Draft EIR:

- Trail Connection Option 1 – **At-Grade** Crossing at **Discovery Drive**;
- Trail Connection Option 2 – **Undercrossing** at **Isabel** Bridge; and

- Trail Connection Option 3 – **Overcrossing** of **Isabel** Avenue/SR 84."

NOA of Draft EIR, pp. 1-2, emph. added.

The concurrently circulated Draft EIR contains the same project description. DEIR, pp. 1-2—1-4.

Carpenters Local 713 is a labor union representing union carpenters in Alameda County , and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects.

Local 713 members live, work, and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

Carpenters Local 713 expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

Carpenters Local 713 incorporates by reference all comments related to the Project or its CEQA review, including the Environmental Impact Report. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, Carpenters Local 713 requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT

The City should require the Project to be built using local workers who have graduated from a Joint Labor-Management Apprenticeship Program and make a commitment to hiring a local workforce.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

> voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 ("**AB2011**"). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts.

II. THE PROJECT WOULD BE APPROVED IN VIOLATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

A. Background Concerning the California Environmental Quality Act

The California Environmental Quality Act is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. 14 California Code of Regulations ("**CEQA Guidelines**"), § 15002, subd. (a)(1).[5] At its core, its purpose is to "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

1. Background Concerning Environmental Impact Reports

CEQA directs public agencies to avoid or reduce environmental damage, when possible, by requiring alternatives or mitigation measures. CEQA Guidelines, § 15002, subds. (a)(2)-(3); see also *Berkeley Keep Jets Over the Bay Committee v. Board of Port Comes* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *Laurel Heights Improvement Assn.*, 47 Cal.3d at p. 400. The EIR

[5] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 et seq., are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. Cal. Pub. Res. Code, § 21083. The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217.

serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA Guidelines, § 15002, subd. (a)(2). If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in Public Resources Code section 21081. See CEQA Guidelines, § 15092, subds. (b)(2)(A)-(B).

While the courts review an EIR using an 'abuse of discretion' standard, the reviewing court is not to *uncritically* rely on every study or analysis presented by a project proponent in support of its position. *Berkeley Jets*, 91 Cal.App.4th at p. 1355 (quoting *Laurel Heights Improvement Assn.*, 47 Cal.3d at pp. 391, 409 fn. 12) (internal quotations omitted). A clearly inadequate or unsupported study is entitled to no judicial deference. *Id.* Drawing this line and determining whether the EIR complies with CEQA's information disclosure requirements presents a question of law subject to independent review by the courts. *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131. As the court stated in *Berkeley Jets*, prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process. 91 Cal.App.4th at p. 1355 (internal quotations omitted).

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450). The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. *Id.* For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Id.*

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "fair argument" standard under which an EIR must be prepared whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602; *Friends of "B" St.* v. *City of Hayward* (1980) 106 Cal.3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." PRC, § 21151; see *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75; accord *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884. Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. PRC, §§ 21100 (a), 21151; CEQA Guidelines, § 15064 (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the agency must adopt a negative declaration. PRC, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063 (b)(2), 15064(f)(3).

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." PRC, § 21068; CEQA Guidelines, § 15382. A project may have a significant effect on the environment if there is a reasonable probability that it will result in a significant impact. *No Oil, Inc.*, 13 Cal.3d at p. 83 fn. 16; see *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309. If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063(b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrigation Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom*, 202 Cal.App.3d at p. 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR

even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen,* 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491; *Friends of "B" St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064(f)(1).

B. The Project May Have a Significant Impact on Biological Resources

There is substantial evidence the Project will have a significant impact on biological resources. As discussed in further detail in a comment letter from biological resources expert Shawn Smallwood, PhD with regards to the proposed Project, incorporated by reference herein, "the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, interference with wildlife movement, and wildlife-automobile collision mortality." (See **Exhibit D** [December 12, 2023 comment letter from Shawn Smallwood, PhD regarding SMP 38, SMP 39, and SMP 40 biological resources analysis].)

First, for example, with regards to the potential for habitat loss, Dr. Smallwood predicts:

> SMP 38 (111.7 acres), SMP 39 (51.9 acres) and SMP 40 (41 acres) support 11.4 bird nests/acre/year. Based on this assumption, the combined projects, SMP 39 and SMP 40, on 92.9 acres would eliminate 1,059 nest sites, and assuming SMP 38 is also later developed, then the combined projects, SMP 38, SMP 39, ad SMP 40, on 204.6 would eliminate 2,332 nest sites.

(**Exhibit D**, p. 28.)

Accordingly, Dr. Smallwood points out that this loss in nest sites would constitute a significant impact from the Project that was not quantitatively addressed in the Draft EIR. (**Exhibit D**, p. 28.) Further, Dr. Smallwood notes that the loss in nests would lead to a loss in the reproductive capacity of the site, thus decreasing the number of birds at the Site over time. (*Id.*)

Second, Dr. Smallwood discusses the Projects impacts on interference with wildlife movement, highlighting that the DEIR's analysis of whether the Project will interfere with wildlife movement in the Project Site area is "flawed and misleading." (**Exhibit D**, p. 29.) Specifically, Dr. Smallwood states that:

> According to the DEIR, "The project area does not fall within an Essential Habitat Connectivity area mapped by the CDFW." However, at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18486, the California Essential Habitat Connectivity Project specifically points out that it is not: "A California Department of Fish and Game or US Fish and Wildlife Service response to potential impacts to a habitat or species from a project subject to the California Environmental Quality Act (CEQA)," nor "Fine scale, with every important piece of habitat identified" nor ""Essential", meaning the only places of importance" nor "A solution by itself for how to provide necessary linkages for any given species of plant or animal... Linkage designs will vary depending on focal species chosen and the goal of providing connected habitat for a chosen species might be met several different ways" nor "The final word on connectivity for California." With analytical grid cells of 2,000 acres, the spatial grain of the California Essential Habitat Connectivity Project is much too coarse for the conclusion the DEIR draws from it.

(**Exhibit D**, p. 29.)

Moreover, Dr. Smallwood points out that the DEIR contains a flawed "argument that SMP 39 is cut off from open areas by well-trafficked roads, the airport, the gravel quarries, and therefore cannot function as a wildlife movement corridor" and notes that the same argument is used for SMP 40. (*Id.*) However, as Dr. Smallwood notes, the DEIR simply uses speculation here and provides no supporting evidence to this assertion. (*Id.*)

Third, Dr. Smallwood discusses the Project's traffic impacts to wildlife, noting that traffic generated from the Project will endanger wildlife that must cross roads used by traffic getting to and from the Project Site. (**Exhibit D**, p. 30.) Dr. Smallwood discusses traffic-caused wildlife mortality and highlights various traffic mortality numbers collected from a wildlife mortality study performed only eleven (11) miles from the Project Site in the County of Contra Costa. (*Id.*) Dr. Smallwood concludes an analysis should be done on "whether increased traffic generated by the project site would similarly result in local impacts on wildlife." (*Id.* at p. 31.)

In addition, the biological impact analysis of the EIR is legally flawed for the following reasons.

First, the DEIR's biological resources impact analysis relies on multiple inadequate biological field surveys outlined in Appendices D and E of the DEIR prepared by Monk & Associates that are described in insufficient detail.

For example, with regards to the field surveys, the DEIR states that:

> "SMP 39 and SMP 40 were both first surveyed in 2000, with follow-up surveys over the years, including in November 2013, for various development proposals. In addition, a **project-specific field survey** was conducted on SMP 39 on **October 14, 2021**, and on SMP 40 on **June 10, 2019** to record biological resources within the sites, and to assess the likelihood of resource agency regulated areas to be located within the sites. An **additional survey** was conducted for SMP 40 on **June 21, 2019** to flag the Arroyo Mocho's riparian drip line to allow for the project engineers to survey the limits of the riparian vegetation and overlay the area on the project site plan, and **another general survey** of SMP 40 was conducted on **September 10, 2021.**"

DEIR, p. 4.3-24. [Emphasis added.']

However, the DEIR's reliance on these biological resources field surveys is improper for several reasons.

First, the DEIR and its accompanying Appendices D and E leave out crucial information about the site surveys.

In summarizing the various site surveys that occurred in 2013, 2019, and 2021, DEIR Appendix D's Biological Resources Analysis ("**SMP-39 BRA**") states that "[e]ach site survey involved searching all habitats on the site and recording all plant and wildlife species observed. . . ." and that the "evaluation included an examination of the site to determine if there could be potential areas within the project site that would be regulated as waters of the United States and/or State . . ." DEIR Appendix D, p. 2. Thus, the SMP-39 BRA field surveys seem to indicate that visual inspections were done during these site visits. However, SMP-39 BRA is insufficient for numerous reasons as it leaves out crucial information about the site surveys while relying on the surveys to form conclusions about the Project's potential biological resources impacts.

As a preliminary matter, *one* (1) single field survey alone for just the SMP-39 Project Site is insufficient to adequately identify all of the potential habitats and plant and wildlife species occurring within the Project Site, as the site surveys purport to have

looked for. In the City's Final EIR Responses to Comments, Response No. 5-12, the City counters our office's prior comment that "[o]ne single field survey is sufficient to get a baseline description of a project site's pant communities and wildlife habitats and to determine if additional surveys for special-status species are necessary." (FEIR Response to Comments, p. 2-75.) However, as Dr. Smallwood notes in his comment letter on the Project, "[m]ore surveys are needed than my two surveys [sic] to inventory use of the project site by wildlife" (**Exhibit D**, pp. 14-15), that the appropriate detection surveys have not been completed at SMP 39 and SMP 40," (*id.* at p. 17), that "[r]econnaissance surveys for wildlife are not designed to detect special-status species" indicating that protocol-level detection surveys are appropriate but that Monk & Associates did not perform such detection surveys here, thus rendering the Draft EIR's "characterization of the existing environmental setting . . . therefore incomplete and inaccurate." (*Id.* at p. 19.) Therefore, it is clear that the single survey conducted for SMP-39 is inadequate.

Moreover, the SMP-39 BRA does not specify what time of the day the surveys were conducted during, (DEIR Appendix D, p. 2) which, again, leaves open the possibility that certain species, for example, nocturnal species, could present themselves at different times of the day. This is further highlighted in Dr. Smallwood's comment letter, where he notes that:

> For none of the above surveys was there reporting of what time the surveys began, or how long the surveys lasted. No checklist is shared of habitat elements that the biologists might have used during their survey to later crosscheck against documented habitats of each special-status species. No explanation is provided of whether or how animal behavior data or other evidence contributed to the biologist's assessment of the site for its importance to animal movement. It is therefore difficult to assess survey outcomes relative to survey effort and methods.

(**Exhibit D**, p. 16.)

Even further, in one (1) single survey, the surveyor may fail to identify species that would only present themselves during certain times of the *year*. According to the SMP-39 BRA in Appendix D, for example, the most recent surveys were conducted in June 2019 (a summer month) and October 2021 (a fall month), while failing to account for the spring and winter months. DEIR Appendix D, p. 2. However, there may be certain plant or animal species that would not be identifiable to an observer during the summer or fall months but that could nevertheless be present at the

Project Site and be identifiable during other seasons of the year. For example, and as noted by Dr. Smallwood, in response to the DEIR's assertion that no special-status plants were observed during some of the surveys at the Project Sites during various months over the years, Dr. Smallwood responds that this reporting is misleading "because only one of the several surveys was conducted during the plant blooming season. Monk and Associates (2021, 2023) did not meet the minimum standards of [California Department of Fish and Wildlife's ("**CDFW**")] (2018) plant survey guidelines. While the FEIR's Responses to Comments counters our office's prior comments, asserting that the CDFW's survey guidelines cited are guidelines for conducting floristic surveys for rare and endangered or other special-status species, the site surveys still failed to meet the CDFW's minimum plant survey guidelines standards. Thus, new surveys must be conducted that meet these standards.

Therefore, the DEIR's reliance on surveys not in compliance with California Department of Fish and Wildlife's survey guidelines[6] and its misuse of the California Natural Diversity Database ("**CNDD**") resulted in potentially inaccurate determinations. For example, with regards to botanical field surveys, the CDFW's survey guidelines state that such field surveys should be conducted in a way that will maximize the likelihood of identifying special status plants and sensitive natural communities that may be present at a site.[7] Specifically, the guidelines state that "[m]ore than one field visit is usually necessary to adequately capture the floristic diversity of a project area."[8]

For each of the foregoing reasons, the Project may have a significant impact on biological resources. Accordingly, the DEIR's findings as to the Project's biological impacts are not supported with substantial evidence that is of verifiable or credible value and the DEIR must be revised and recirculated to reassess those impacts, including on the wildlife species with potential to occur on the Project Site using protocol-level detection surveys and describing those surveys with sufficient detail.

[6] *See*, California Natural Resources Agency, *Department of Fish and Wildlife Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities, available at* https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline, pp. 4, 5-6, accessed on Oct. 9, 2023), updated on Feb. 3, 2023; *see generally* California Department of Fish and Wildlife California Natural Diversity Database, *available at* https://wildlife.ca.gov/Data/CNDDB/Plants-and-Animals (last visited on Oct. 9, 2023.)

[7] California Natural Resources Agency, *supra*, at p. 4.

[8] *Id.*

C. The Project May Have Significant Noise Impacts.

There is substantial evidence that the Project will have significant traffic impacts. As discussed by Principal Steve Rogers of Steve Rogers Acoustics, "the evaluation of noise impacts during the construction phases is incomplete and contains a significant calculation error." (**Exhibit E**, p. 3 [December 12, 2023 comment letter re City of Livermore SMP 38/SMP 39/SMP 40 Project Review of DEIR Noise Section & Appendices]), fully incorporated herein.

First, as noted by Mr. Rogers for the DEIR's construction noise impacts, the DEIR concludes there will be a less than significant impact for on-site construction, but per the DEIR's analysis, the DEIR fails to adequately support this conclusion for multiple reasons. (**Exhibit E**, p. 2.) For example, the DEIR fails to include SMP 39's construction noise impacts in its section 4.6 analysis. (*Id.*) Second, Mr. Rogers notes that the noise analysis for SMP 40 is incomplete. Specifically,

> The noise impact analysis for construction on the SMP 40 site compares Salter's noise level predictions with instantaneous maximum noise level (Lmax) limits of 70 dBA during the day and 60 dBA at night, which are taken from Policy N-1.5.P3 of the City of Livermore General Plan.
>
> However, these Lmax noise limits are not the only local regulations that would apply to construction noise on the SMP 40 site.
>
> . . .
>
> Similarly, the DEIR does not include an DNL analysis for construction noise from SMP 40 to show that it will be below the 60 dBA exterior noise standard taken from land-use compatibility table (Table 9-7) in the General Plan. This will be particularly important if any construction work is to occur at night.

(**Exhibit E**, pp. 2-3.)

Third, Mr. Rogers highlights that there was an error in the calculations for SMP 40 with regards to various construction equipment pieces at a 50-foot distance. (*Id.*) Lastly, Mr. Rogers states that the construction noise analysis on the east side of the SMP 40 site is overlooked, as it assumes receivers 884 feet away from the equipment, while during other phases of construction, the noisy equipment may be operating closer than 884-feet from nearby residential uses. (*Id.*)

For each of the foregoing reasons, the Project may have a significant noise impact and the EIR should therefore be revised and recirculated.

III. CONCLUSION

Based on the foregoing, the City should deny the Project's proposed entitlements and require that the Environmental Impact Report be revised and recirculated pursuant to CEQA, consistent with the comments and issues identified in this comment letter.

Sincerely,

Stephanie Papayanis

Stephanie Papayanis
Attorneys for Carpenters Local 713

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B);

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C);

December 12, 2023 Comment Letter from Biological Resources Expert regarding SMP 38, SMP 39, and SMP 40 Project (Exhibit D); and

December 12, 2023 Comment Letter from Noise Expert Steve Rogers regarding Review of DEIR Noise Section an Appendices (Exhibit E).

EXHIBIT A

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

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

EXHIBIT E

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
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North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6826**	**1,721.6826**	**0.1294**	**0.0000**	**1,724.9187**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6823**	**1,721.6823**	**0.1294**	**0.0000**	**1,724.9183**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2021	11-30-2021	1.4103	1.4103
2	12-1-2021	2-28-2022	1.3613	1.3613
3	3-1-2022	5-31-2022	1.1985	1.1985
4	6-1-2022	8-31-2022	1.1921	1.1921
5	9-1-2022	11-30-2022	1.1918	1.1918
6	12-1-2022	2-28-2023	1.0774	1.0774
7	3-1-2023	5-31-2023	1.0320	1.0320
8	6-1-2023	8-31-2023	1.0260	1.0260

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	2.8857	2.8857
11	**3-1-2024**	**5-31-2024**	1.6207	1.6207
		Highest	2.8857	2.8857

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6554**	**1,418.6554**	**0.1215**	**0.0000**	**1,421.6925**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6550**	**1,418.6550**	**0.1215**	**0.0000**	**1,421.6921**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4091	1.4091
2	**12-1-2021**	**2-28-2022**	1.3329	1.3329
3	**3-1-2022**	**5-31-2022**	1.1499	1.1499
4	**6-1-2022**	**8-31-2022**	1.1457	1.1457
5	**9-1-2022**	**11-30-2022**	1.1415	1.1415
6	**12-1-2022**	**2-28-2023**	1.0278	1.0278
7	**3-1-2023**	**5-31-2023**	0.9868	0.9868
8	**6-1-2023**	**8-31-2023**	0.9831	0.9831

9	**9-1-2023**	**11-30-2023**	0.9798	0.9798
10	**12-1-2023**	**2-29-2024**	2.8757	2.8757
11	**3-1-2024**	**5-31-2024**	1.6188	1.6188
		Highest	2.8757	2.8757

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

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

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

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Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

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

1640 5th St.., Suite 204 Santa
Santa Monica, California 90401
Tel: (949) 887-9013
Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Ashley Vera, Senior Planner
City of Livermore
Community Development Department
1052 S. Livermore Avenue
Livermore, CA 94550 12 December 2023

RE: SMP 38, SMP 39. SMP 40

Dear Ms. Vera,

I write to comment on potential impacts to biological resources that could result from the proposed SMP 38, SMP 39. SMP 40 Project, which I understand would add 1,514,275 square feet of floor space in eight speculative industrial buildings up to 55 feet tall on 217.04 acres located on APNs) 904-1-7-21; 904-1-2-12; 904-1-7-32; 904-3-1-4; 904-10-2-2, -3, -5, -7, and -8 west of Isabel Avenue, north of Stanley Boulevard, south of West Jack London Boulevard, and east of El Charro Road. I comment on the analyses of impacts to biological resources in the DEIR and in Monk & Associates (2021).

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, wildlife interactions with the anthrosphere, and conservation of rare and endangered species. I authored many papers on these and other topics. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I've lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-seven years. My CV is attached.

SITE VISIT

I visited the SMP 40 for 2.22 hours from 14:43 to 16:35 hours on 28 November 2023, and SMP 38 and SMP 39 for 2.83 hours from 06:45 to 09:35 hours on 29 November 2023. At SMP 40, I surveyed from a cul-du-sac on the north edge of the site. At SMP 38 and SMP 39, I walked the northern perimeters, stopping to scan for wildlife with use of binoculars. I recorded all species of vertebrate wildlife I detected, including those whose members flew over the sites or were seen nearby, off the sites. Animals of uncertain species identity were either omitted or, if possible, recorded to the Genus or higher taxonomic level.

Conditions were mostly cloudy still with temperatures of 62-55° F on the 28th and 46-50° F on the 29th. The sites have been previously disked, and at the time of the surveys they were covered by annual grasses and ruderal vegetation (Photos 1—2).

Photos 1–2. Views of SMP 40 (top) and SMP 39 with a flock of Canada goose (bottom), 28-29 November 2023.

I detected 46 species of vertebrate wildlife at or adjacent to the project site, including 10 species with special status (Table 1). I saw Botta's pocket gopher (Photo 3) and California ground squirrel (Photo 4), both species of which are ecological keystone species. I saw loggerhead shrike (Photo 5), Cooper's hawk and American kestrel (Photos 6 and 7), western meadowlark (Photo 8), house finch and killdeer (Photos 9 and 10), black phoebe and white-crowned sparrow (Photos 11 and 12), mourning dove (Photo 13), Say's phoebe and yellow-rumped warbler (Photos 14 and 15), savannah sparrow (Photo 16), and lesser goldfinch and bushtit (Photos 17 and 18), among the other species listed in Table 1. Many of the species actively foraged on the site, including coyote, Cooper's hawk, red-tailed hawk, horned lark, Canada goose and Aleutian cackling goose, killdeer, western meadowlark, house finch and others. I observed Some species in high abundance, including western meadowlark and mourning dove. California ground squirrels occupied all three sites, but were particularly abundant on SMP 40.

Table 1. Species of wildlife I observed during 5.05 hours of survey on 28-29 November 2023.

Common name	*Species name*	Status[1]	Notes	SMP			Just offsite
				38	39	40	
Sierran treefrog	*Pseudacris regilla*		Calling	X	X		
Cackling goose	*Branta hutchinsii*	TWL	Foraging	X	X		X
Canada goose	*Branta canadensis*		Foraging	X	X		X
Mallard	*Anas platyrhynchos*		Flyover	X	X	X	X
Mourning dove	*Zenaida macroura*		Many	X	X	X	X
Killdeer	*Charadrius vociferus*		Foraging	X	X	X	
Short-billed gull	*Larus brachyrhynchus*		Flyover			X	
Ring-billed gull	*Larus delawarensis*		Flyover	X	X	X	
California gull	*Larus californicus*	BCC, TWL	Flyover	X	X	X	
Herring gull	*Larus argentatus*		Flyover			X	
Glaucous-winged gull	*Larus glaucescens*		Flyover		X	X	
Double-crested cormorant	*Nannopterum auritum*	TWL	Flyover		X		X
Great blue heron	*Ardea herodias*		Flyover		X		X
Turkey vulture	*Cathartes aura*	BOP	Foraging		X	X	
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP	SMP 39		X		
Cooper's hawk	*Accipiter cooperii*	TWL, BOP	Perched at airport, foraged project site		X		X
Red-tailed hawk	*Buteo jamaicensis*	BOP		X	X	X	X
Hairy woodpecker	*Dryobates villosus*		Flyover	X			X
Northern flicker	*Colaptes auratus*		SMP 40			X	
American kestrel	*Falco sparverius*	BOP		X	X	X	
Black phoebe	*Sayornis nigricans*			X	X	X	X
Say's phoebe	*Sayornis saya*		SMP 39		X		
Loggerhead shrike	*Lanius ludovicianus*	SSC2	SMP 39		X		
California scrub-jay	*Aphelocoma californica*					X	X
American crow	*Corvus brachyrhynchos*			X	X	X	X
Common raven	*Corvus corax*			X	X	X	X
California horned lark	*Eremophila alpestris actia*	TWL	Foraging			X	
Violet-green swallow	*Tachycineta thalassina*		SMP 40			X	X

Common name	*Species name*	Status[1]	Notes	SMP			Just offsite
				38	39	40	
Bushtit	*Psaltriparus minimus*		Just offsite				X
Northern mockingbird	*Mimus polyglottos*				X	X	X
European starling	*Sturnus vulgaris*	Non-native		X	X	X	X
American pipit	*Anthus rubescens*		Foraging		X		
House finch	*Haemorphous mexicanus*				X	X	X
Lesser goldfinch	*Spinus psaltria*		Just offsite				X
Lawrence's goldfinch	*Spinus lawrencei*	BCC	SMP 40			X	
White-crowned sparrow	*Zonotrichia leucophrys*				X	X	X
Savannah sparrow	*Passerculus sandwichensis*		SMP 38, SMP 39		X		
Lincoln's sparrow	*Melospiza lincolnii*		SMP 38		X		X
California towhee	*Melozone crissalis*				X		X
Western meadowlark	*Sturnella neglecta*		Many	X	X	X	X
Red-winged blackbird	*Agelaius phoeniceus*					X	
Brown-headed cowbird	*Molothrus ater*					X	
Yellow-rumped warbler	*Setophaga coronata*			X	X	X	X
Desert cottontail	*Sylvilagus audubonii*		SMP 38				X
California ground squirrel	*Otospermophilus beecheyi*		Many	X	X	X	X
Coyote	*Canis latrans*		SMP 39		X		
Botta's pocket gopher	*Thomomys bottae*		Burrows		X		X

[1] Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

Photo 3. Botta's pocket gopher mounds on the project site, 29 November 2023.

Photo 4. California ground squirrels on the SMP 40 portion of the project site, 28 November 2023.

Photo 5. Loggerhead shrike on the SMP 39 portion of the project site, 29 November 2023.

Photos 6 and 7. Cooper's hawk (L) and American kestrel (R) at the project site, 29 November 2023.

Photo 8. One of many western meadowlarks foraging on the SMP 39 portion of the project site, 29 November 2023.

Photos 9 and 10. House finches (top) and one of many killdeer (bottom) on the project site, 28-29 November 2023.

Photos 11 and 12. Black phoebe (L) and white-crowned sparrow (R) on the project site, 28-29 November 2023.

Photo 13. One of many mourning doves foraging on the SMP 39 portion of the project site, 29 November 2023.

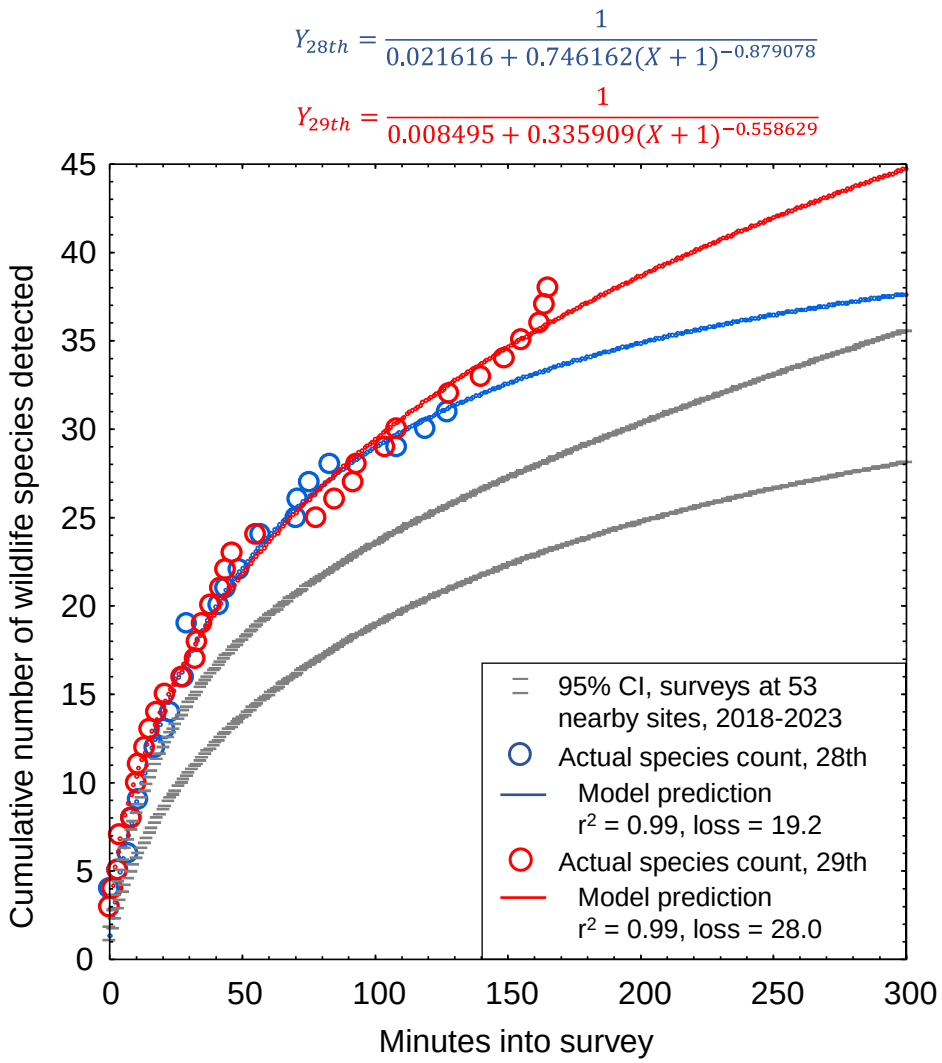
Photos 14 and 15. Say's phoebe (top) and yellow-rumped warbler (bottom) on the project site, 28-29 November 2023.

Photo 16. Savannah sparrow on the SMP 39 portion of the project site, 29 November 2023.

Photos 17 and 18. Lesser goldfinch (L) and bushtit (R) just off the project site, 29 November 2023.

I fit nonlinear regression models to the cumulative numbers of vertebrate species I detected with time into my surveys to predict the number of species that I would have detected with a longer survey or perhaps with additional biologists available to assist. The models are logistic growth models which reach asymptotes that correspond with the maximum numbers of vertebrate wildlife species that could have been detected during each survey. In this case, the models predict 46 and 118 species of vertebrate wildlife were available to be detected on the evening of the 28th and the morning of the 29th, respectively, the difference likely due to the onset of darkness during the evening survey of the 28th. Compared to models fit to data I collected from 18 other sites in the region between 2019 and 2023, the data from this project site exceeds the upper bound of the 95% confidence interval of the rate of accumulated species detections with time into the survey (Figure 1). Importantly, however, the species I detected on November 28-29 composed only a fraction of the species that would occur at the project site over the period of a year or longer. This is because many species are seasonal in their occurrence.

Figure 1. Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on visual-scan surveys on 28-29 November 2023. Note that the relationships would differ if the surveys were based on another method or during another season.



At least a year's worth of surveys would be needed to more accurately report the number of vertebrate species that occur at the project site, but I only have Noriko's one survey. However, by use of an analytical bridge, a modeling effort applied to a large, robust data set from a research site can predict the number of vertebrate wildlife species that likely make use of the site over the longer term. As part of my research, I completed a much larger survey effort across 167 km² of annual grasslands of the Altamont Pass Wind Resource Area, where from 2015 through 2019 I performed 721 1-hour visual-scan surveys, or 721 hours of surveys, at 46 stations. I used binoculars and otherwise the methods were the same as the methods I and other consulting biologists use for surveys at proposed project sites. At each of the 46 survey stations, I tallied new species detected with each sequential survey at that station, and then related the cumulative species detected to the hours (number of surveys, as each survey lasted 1 hour) used to accumulate my counts of species detected. I used combined quadratic and simplex methods of estimation in Statistica to estimate least-squares, best-fit nonlinear models of the number of cumulative species detected regressed on hours of survey (number of surveys) at the station: $\hat{R} = \frac{1}{1/a+b\times(Hours)^c}$, where $\hat{R}$ represented cumulative species

richness detected. The coefficients of determination, r^2, of the models ranged 0.88 to 1.00, with a mean of 0.97 (95% CI: 0.96, 0.98); or in other words, the models were excellent fits to the data.

I projected the predictions of each model to thousands of hours to find predicted asymptotes of wildlife species richness. The mean model-predicted asymptote of species richness was 57 after 11,857 hours of visual-scan surveys among the 46 stations of my research site. I also averaged model predictions of species richness at each incremental increase of number of surveys, i.e., number of hours (Figure 2). On average I would have detected 17.5 species over my first 5.05 hours of surveys at my research site in the Altamont Pass (5.05 hours to match the 5.05 hours I surveyed at the project site), which composed 30.7% of the predicted total number of species I would detect with a much larger survey effort at the research site. Given the example illustrated in Figure 2, the 46 species I detected after my 5.05 hours of survey at the project site likely represented 30.7% of the species to be detected after many more visual-scan surveys over another year or longer. With many more repeat surveys through the year, I would likely detect $^{46}/_{0.307} = 150$ species of vertebrate wildlife at the site. Assuming my ratio of special-status to non-special-status species was to hold through the detections of all 150 predicted species, then continued surveys would eventually detect 33 special-status species of vertebrate wildlife.

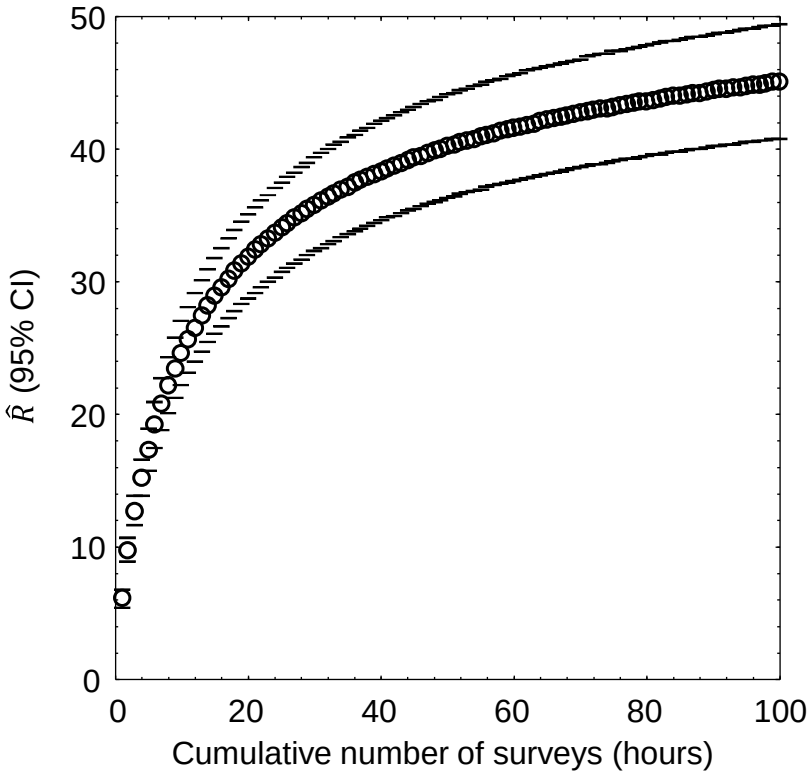


Figure 2. Mean (95% CI) predicted wildlife species richness, $\hat{R}$, as a nonlinear function of hour-long survey increments across 46 visual-scan survey stations across the Altamont Pass Wind Resource Area, Alameda and Contra Costa Counties, 2015–2019. Note that the location of the study is largely irrelevant to the utility of the graph to the interpretation of survey outcomes at the project site. It is the pattern in the data that is relevant, because the pattern is typical of the pattern seen elsewhere.

Because my prediction of 150 species of vertebrate wildlife, including 33 special-status species of vertebrate wildlife, is derived from daytime visual-scan surveys, and would detect few nocturnal mammals such as bats, the true number of species composing the wildlife community of the site must be larger. My reconnaissance surveys should serve

only as a starting point toward characterization of the site's wildlife community, but they certainly cannot alone inform of the inventory of species that use the site. More surveys are needed than my two survey to inventory use of the project site by wildlife. Nevertheless, the large number of species I predict at the project site is indicative of a relatively species-rich wildlife community that warrants a serious survey effort.

EXISTING ENVIRNMENTAL SETTING

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the biological species that use the site, their relative abundances, how they use the site, key ecological relationships, and known and ongoing threats to those species with special status. A reasonably accurate characterization of the environmental setting can provide the basis for determining whether the site holds habitat value to wildlife, as well as a baseline against which to analyze potential project impacts. For these reasons, characterization of the environmental setting, including the project site's regional setting, is one of CEQA's essential analytical steps. Methods to achieve this first step typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases and local experts for documented occurrences of special-status species. In the case of the proposed project, these needed steps have been inadequate.

Environmental Setting informed by Field Surveys

To CEQA's primary objective to disclose potential environmental impacts of a proposed project, the analysis should be informed of which biological species are known to occur at the proposed project site, which special-status species are likely to occur, as well as the limitations of the survey effort directed to the site. Analysts need this information to characterize the environmental setting as a basis for opining on, or predicting, potential project impacts to biological resources.

Herein I discuss several types of surveys, which are common to environmental review, but which are often misunderstood and misapplied. A *reconnaissance survey*, also often referred to as a general biological survey, is intended to (1) detect as many of the species as feasible during the time of the survey, (2) search for and map the locations of approximate boundaries of wetlands and coarse representations of vegetation cover, and (3) assess the likelihood of occurrences of special-status species. The latter objective is often referred to as habitat assessment. CDFW (2018) provides guidelines for reconnaissance surveys directed toward plant species, but there are no guidelines for reconnaissance-level wildlife surveys, other than the expected use of sound scientific methodology. A *protocol-level survey* is a survey guided by a written protocol, usually by a resource agency or professional group of biologists. Such surveys can be for various objectives, but in environmental review they are usually intended for detection surveys. *Detection surveys* are formulated by experts on a particular species to, at reasonable cost, give survey personnel the best chance at detecting members of a species if the species is indeed present. The additional purpose of detection surveys is to support absence determinations when the protocol was followed but the species was nevertheless not detected. Absence determinations made for special-status species are

supportable only if the results of detection surveys were negative, or when the site is outside the species' geographic range or clearly does not provide habitat.

Preconstruction surveys are take-avoidance surveys intended to be completed after reconnaissance surveys and detection surveys and just prior to construction ground-disturbance activities such as clearing and grubbing or grading. For some species, protocols for preconstruction surveys are included in mitigation guidelines. The preconstruction survey is a mitigation measure, and therefore not to be confused with other types of surveys. This type of survey will be discussed in the Mitigation section near the end of my comments.

Monk & Associates (2021) performed a reconnaissance survey of the SMP 39 project site on 5 November 2021 "to record biological resources and to assess the likelihood of resource agency regulated areas occurring on the project site," and "searching all habitats on the site and recording all plant and wildlife species observed," and "examination of the site to determine if there could be potential areas within the project site that would be regulated as waters of the United States and/or State." Monk & Associates (2023) performed two reconnaissance surveys of the SMP 40 project site on 10 June 2019 and 10 September 2021. The objectives of the surveys at SMP 40 were essentially the same as those for the survey of SMP 39. In all three of these surveys, Monk & Associates recorded all the species observed. A wetland delineation was alco completed at SMP 40.

For none of the above surveys was there reporting of what time the surveys began, or how long the surveys lasted. No checklist is shared of habitat elements that the biologists might have used during their survey to later crosscheck against documented habitats of each special-status species. No explanation is provided of whether or how animal behavior data or other evidence contributed to the biologist's assessment of the site for its importance to animal movement. It is therefore difficult to assess survey outcomes relative to survey effort and methods.

Monk & Associates (2021) detected 14 species of vertebrate wildlife on SMP 39, and Monk & Associates (2023) detected 22 species of vertebrate wildlife on SMP 40. In comparison, and even though I was unable to access either of the project sites, I detected 34 species in only 1.83 hours at SMP 39, and 29 species in only 2.22 hours at SMP 40. I also detected twice the number of special-status species at SMP 39 and 1.5 times the number of special-status species at SMP 40. Based on my surveys of the project sites, the existing environmental setting of each appears substantially different from the setting characterized by Monk & Associates (2021, 2023). Considering the differences between what Monk & Associates and what I found, I suggest that Monk & Associates must have either been distracted by other too many survey objectives, or lacked the skill needed to perform the surveys. The results of the Monk and Associates (2021, 2023) surveys have been misinterpreted in the reports, resulting in inaccurate characterizations of the existing environmental settings of SMP 39 and SMP 40.

Combining my survey results with those of Monk & Associates (2021, 2023), 38 species of vertebrate wildlife have been detected at SMP 39, and 44 species have been detected

at SMP 40. These combined results increase the documented number of species at SMP 39 by nearly 3-fold and they double the number of species at SMP 40. In other words, the combined survey outcomes support my modeling predictions of much larger numbers of species of wildlife making use of the project sites than can be demonstrated by one or two reconnaissance surveys. My modeling predicts at least 150 species of vertebrate wildlife make use of the two sites, and this prediction was based solely on diurnal visual-scan surveys, and not on live-trapping for small mammals and nocturnal surveys for nocturnally active animals. The wildlife communities of SMP 39 and SMP 40 are much richer than portrayed in the DEIR.

The DEIR (page 4.3-25) reports that "western burrowing owls have not been observed within SMP 39 or SMP 40." This is factually incorrect, as CNDDB includes a record of burrowing owl occurrence on SMP 39 (Monk & Associates 2023: Figure 4). Even if this reporting was correct, it would still qualify as pseudoscientific. The appropriate surveys for detecting burrowing owls are detailed in the survey guidelines of CDFW (2012). Lack of detections of burrowing owls during reconnaissance surveys would be meaningful only after completion of many reconnaissance surveys at the appropriate time of year and by qualified biologists. Considering that ground squirrels occur in abundance on SMP 39 and SMP 40, and considering that one of California's most significant populations of burrowing owls occurs within the nearby Altamont Pass (Smallwood et al. 2013), and considering that the appropriate detection surveys have not been completed at SMP 39 and SMP 40, it would be prudent to assume that burrowing owls occur on the project sites.

Regarding tricolored blackbird, the DEIR (page 4.3-26) reports that "the species has not been observed near SMP 39 in nearly 40 years." This is factually incorrect, as eBird includes a 2003 record of tricolored blackbird occurrence only 300 m north of SMP 39. The DEIR also reports that tricolored blackbird would not occur on SMP 9 because "aquatic habitat does not exist within SMP 39." But this is also factually incorrect. I have many times recorded tricolored blackbird occurrences on grasslands of the Altamont Pass far from bodies of water (Photos 19 and 20). Grassland environments is where tricolored blackbirds do most of their foraging in Alameda County, and it is where they sometimes nest within the Altamont Pass (Photo 20).

The DEIR reports that loggerhead shrikes do not occur on SMP 39. But again, the DEIR is factually inaccurate. I observed a loggerhead shrike on SMP 39 (Photo 21), which as it turned out, was near where a loggerhead shrike sighting was also reported to eBird in 2018. Loggerhead shrike does occur on SMP 39, as well as on SMP 40.

The DEIR reports that SMP 39 and SMP 40 contains potential habitat of raptors. However, the word "potential" insinuates uncertainty remains on the question of whether the sites provide raptor habitat. Of course, they do. Those portions of the environment used by raptors are considered raptor habitat. Between my surveys and those of Monk & Associates, and including CNDDB and eBird records, the following raptors have been seen on SMP 39 and SMP 40: turkey vulture, northern harrier, white-tailed kite, red-tailed hawk, ferruginous hawk, Cooper's hawk, American kestrel, merlin,

and burrowing owl. There should be no ambiguity around the question of whether raptor habitat occurs on SMP 39 and SMP 40; raptor habitat is present.

Photos 19 and 20. Top, tricolored blackbirds forage on grassland far from aquatic environments, and bottom, they breed on rapeseed and thistle in the Altamont Pass Wind Resource Area.

Photo 21. Loggerhead shrike on the SMP 39 portion of the project site, 29 November 2023.

Reconnaissance surveys for wildlife are not designed to detect special-status species. Special-status species can be detected during such surveys, as has been the case for 10 special-status species at the project site, but these surveys are not formulated to detect them, nor are there minimum standards to be met in these surveys to support absence determinations. For the latter purpose, protocol-level detection surveys have been formulated by species experts. Monk & Associates (2021, 2023) did not perform any detection surveys. Based on Monk & Associates (2021, 2023), the DEIR's characterization of the existing environmental setting is therefore incomplete and inaccurate.

The same is true for special-status species of plants. According to the DEIR (page 4.3-25), "special-status plants have not been observed during several surveys of the project sites conducted during various months over the years." However, this reporting is misleading, because only one of the several surveys was conducted during the plant blooming season. Monk and Associates (2021, 2023) did not meet the minimum standards of CDFW's (2018) plant survey guidelines.

Environmental Setting informed by Desktop Review

The purpose of literature and database review and of consulting with local experts is to inform the field survey, and to augment interpretation of its outcome. Analysts need this information to identify which species are known to have occurred at or near the project site, and to identify which other special-status species could conceivably occur at the site due to geographic range overlap and migration flight paths.

Monk & Associates (2021) did not reportedly review eBird (https://eBird.org) or iNaturalist (https://www.inaturalist.org) for documented occurrence records at or near the project site. Instead, Monk & Associates (2021, 2023) queried the California Natural Diversity Data Base (CNDDB) for documented occurrences of special-status species within the three miles of the project sites. By taking this approach, Monk & Associates (2021, 2023) and the DEIR screen out many special-status species from further consideration in the characterization of the wildlife community as part of the existing environmental setting. CNDDB is not designed to support absence determinations or to screen out species from characterization of a site's wildlife community. As noted by CNDDB, "*The CNDDB is a positive sighting database. It does not predict where something may be found. We map occurrences only where we have documentation that the species was found at the site. There are many areas of the state where no surveys have been conducted and therefore there is nothing on the map. That does not mean that there are no special status species present*." Monk & Associates (2021, 2023) and the DEIR misuse CNDDB.

According to Monk & Associates (2021:6), "No special-status animal records have ever been mapped on the project site." The word "ever" adds emphasis to the finding. However, by implication, Monk & Associates (2021) misrepresents CNDDB as a database with uniform representation of California properties, which is far from the case. CNDDB relies entirely on volunteer reporting from biologists who were allowed access to whatever properties they report from. Many properties have never been surveyed by biologists. Many properties have been surveyed, but the survey outcomes never reported to CNDDB. Many properties have been surveyed multiple times, but not all survey outcomes reported to CNDDB. Furthermore, CNDDB is interested only in the findings of special-status species, which means that species more recently assigned special status will have been reported many fewer times to CNDDB than were species assigned special status since the inception of CNDDB. The lack of many CNDDB records for species recently assigned special status had nothing to do with whether the species' geographic ranges overlapped the project site, but rather more to do with the brief time for records to have accumulated since the species were assigned special status. And because negative findings are not reported to CNDDB, CNDDB cannot provide the basis for estimating occurrence likelihoods, either.

In my assessment based on database reviews and site visits, 128 special-status species of wildlife are known to occur near enough to the site (SMP 38, SMP 39, SMP 40) to warrant analysis of occurrence potential (Table 2). Of these 128 species, 19 (15%) were recorded on the project site, and another 35 (27%) species have been documented within 1.5 miles of the site ('Very close'), another 13 (10%) within 1.5 and 4 miles

('Nearby'), and another 57 (45%) within 4 to 30 miles ('In region'). More than half (52%) of the species in Table 2 have been reportedly seen within 4 miles of the project site. The site therefore supports multiple special-status species of wildlife and carries the potential for supporting many more special-status species of wildlife based on proximity of recorded occurrences. The site is far richer in special-status species than is characterized in the DEIR.

Whereas Monk & Associates (2021, 2023) reportedly queried CNDDB for occurrence records within three miles of the project sites, the DEIR analyzes the occurrence likelihoods of only 6 (<5%) of the species in Table 2. That only 6 special-status species were identified from occurrence records within 3 miles strains credulity. As noted above, using eBird and iNaturalist, I found records of 54 special-status species of wildlife within only 1.5 miles of the project sites, and 67 within 4 miles of the sites.

Of the 6 species included in Monk & Associates (2021, 2023) analyses of occurrence likelihoods, the DEIR concludes that 4 have no chance of occurrence, 1 has low to no chance, and 1 has low to moderate chance of occurrence. Except for species whose habitat is compellingly absent from the site, absence determinations are inappropriate based on the evidence gathered by Monk & Associates (2021, 2023). Absence determinations are supportable only after species-specific protocol-level detection surveys have been completed to the standards of the protocols, and the species were nevertheless not detected. No such surveys have been completed. It is inappropriate to conclude that a species is absent simply by looking at a site, and it is especially inappropriate to do so for 125 species of wildlife. Important findings of Monk & Associates (2021, 2023) and the DEIR are not supportable.

Of the special-status species that Monk & Associates (2021, 2023)) claims to be absent from one or both of the project sites, two – burrowing owl and loggerhead shrike – have been seen where they were reported to be absent. Occurrence records of another 2 supposedly absent special-status species have been reported within only 1.5 miles of the site, and another has been reported within 1.5 and 4 miles of the project site. Important findings of Monk & Associates (2021, 2023) and the DEIR are not supportable.

Of the 122 special-status species in Table 2, but which the DEIR does not analyze for occurrence potential, some are unlikely to occur, whereas many *are* likely to occur. With ground squirrels known to be present on SMP 39 and SMP 40, there is reason to expect the occurrences of American badger, ferruginous hawk, bald eagle and golden eagle. I regularly observed these species in the Altamont Pass Wind Resource Areas while I performed various studies there from 1999 through 2019. Golden eagles, I continue to record both in the Altamont Pass and over and on the project sites (Figure 3). Of the 45 golden eagles that Douglas Bell captured and fit with GPS telemetry backpacks since 2013, 11 have flown to or perched in the areas of the project sites (Figure 3).

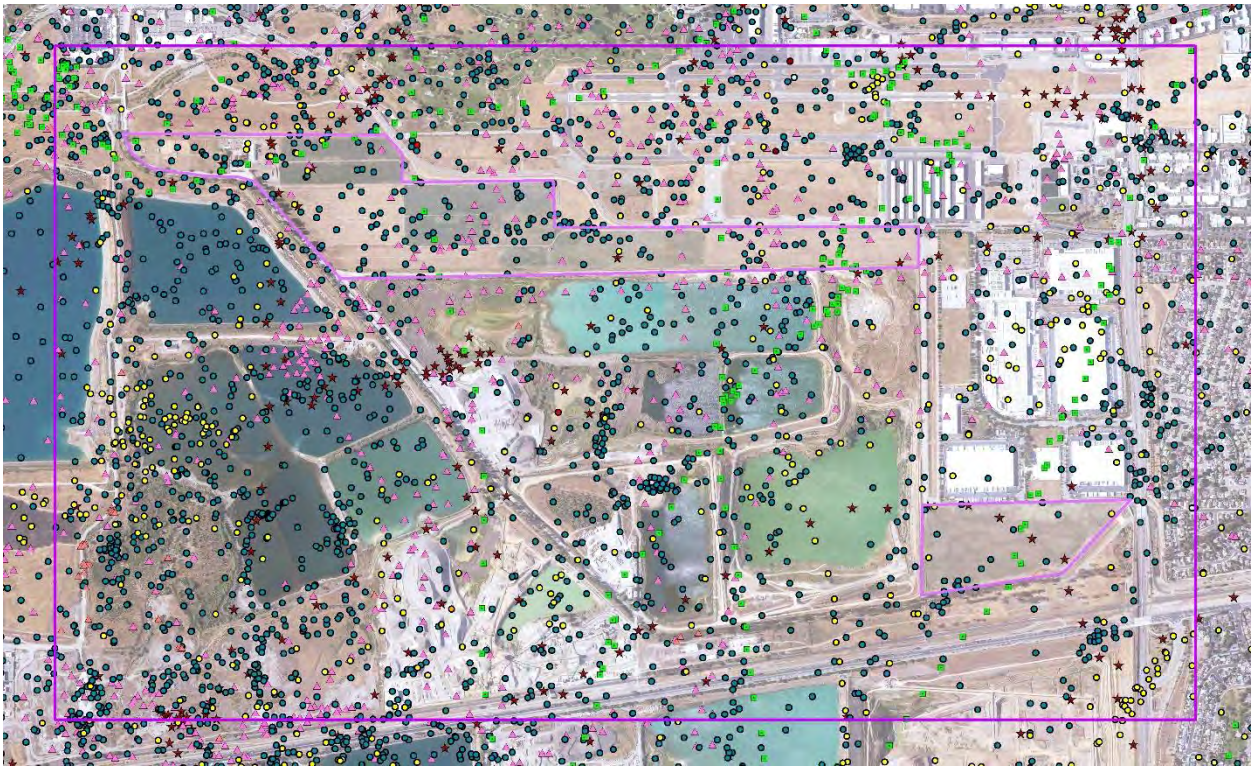


Figure 3. GPS telemetry positions (N = 3,478) of 11 golden eagles from 2014 through 2023, each distinct color-symbol combination representative of one golden eagle. Many of the positions are on SMP 38, SMP 39, and SMP 40. Many of the positions are of flying golden eagles, and some are of perched golden eagles.

Considering the inaccuracies of the DEIR's characterization of the existing environmental setting, the reasonable course of action would be to withdraw the current draft EUIR and prepare a new one to appropriately characterize the existing environmental setting. The public needs to understand the nature of the sensitive biological assets that exist on the project sites.

Table 2. Occurrence likelihoods of special-status bird species at or near the proposed project site, according to eBird/iNaturalist records (https://eBird.org, https://www.inaturalist.org) and on-site survey findings, where 'Very close' indicates within 1.5 miles of the site, "nearby" indicates within 1.5 and 4 miles, and "in region" indicates within 4 and 30 miles, and 'in range' means the species' geographic range overlaps the site. Entries in bold font indicate those species I detected during my reconnaissance surveys.

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Longhorn fairy shrimp	*Branchinecta longiantenna*	FE		In region
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT		In region
Vernal pool tadpole shrimp	*Lepidurus packardi*	FE		In region
Monarch	*Danaus plexippus*	FC		Very close
Crotch's bumble bee	*Bombus crotchii*	CCE		In region
California tiger salamander	*Ambystoma californiense*	FT, CT, WL	None	Nearby
Foothill yellow-legged frog	*Rana boylii*	CT, SSC		In region
California red-legged frog	*Rana draytonii*	FT, SSC	None	Nearby
Western pond turtle	*Emys marmorata*	SSC	None	Very close
Blainville's horned lizard	*Phrynosoma blainvillii*	SSC		In region
Northern California legless lizard	*Anniella pulchra*	SSC		In region
California glossy snake	*Arizona elegans occidentalis*	SSC		In region
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	SSC		In region
Alameda whipsnake	*Coluber lateralis euryxanthus*	FT, CT		In region
Brant	*Branta bernicla*	SSC2		In region
Cackling goose (Aleutian)	*Branta hutchinsii leucopareia*	WL		On site
Redhead	*Aythya americana*	SSC2		Very close
Harlequin duck	*Histrionicus histrionicus*	SSC2		In region
Barrow's goldeneye	*Bucephala islandica*	SSC		Very close
Western grebe	*Aechmophorus occidentalis*	BCC		Very close
Clark's grebe	*Aechmophorus clarkii*	BCC		Very close
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT, CE, BCC		In region
Black swift	*Cypseloides niger*	SSC3, BCC		In region
Vaux's swift	*Chaetura vauxi*	SSC2, BCC		Very close
Costa's hummingbird	*Calypte costae*	BCC		In region
Rufous hummingbird	*Selasphorus rufus*	BCC		Very close

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Allen's hummingbird	*Selasphorus sasin*	BCC		Very close
Ridgway's rail (San Francisco Bay)	*Rallus obsoletus obsoletus*			In region
Yellow rail				In region
Lesser sandhill crane	*Antigone canadensis canadensis*	SSC3		In region
Greater sandhill crane	*Antigone canadensis tabida*	CT, FP		In region
American avocet[4]	*Recurvirostra americana*	BCC		Very close
Mountain plover	*Charadrius montanus*	SSC2, BCC		In region
Snowy plover	*Charadrius nivosus*	BCC		In region
Western snowy plover	*Charadrius nivosus nivosus*	FT, SSC, BCC		In region
Whimbrel[4]	*Numenius phaeopus*	BCC		In region
Long-billed curlew	*Numenius americanus*	WL		Very close
Marbled godwit	*Limosa fedoa*	BCC		Very close
Red knot (Pacific)	*Calidris canutus*	BCC		Very close
Short-billed dowitcher	*Limnodromus griseus*	BCC		Nearby
Willet	*Tringa semipalmata*	BCC		Very close
Laughing gull	*Leucophaeus atricilla*	WL		In region
Heermann's gull	*Larus heermanni*	BCC		In region
Western gull	*Larus occidentalis*	BCC		Very close
California gull	*Larus californicus*	BCC, WL		On site
California least tern	*Sternula antillarum browni*	FE, CE, FP		In region
Black tern	*Chlidonias niger*	SSC2, BCC		In region
Elegant tern	*Thalasseus elegans*	BCC, WL		Nearby
Black skimmer	*Rynchops niger*	BCC, SSC3		In region
Common loon	*Gavia immer*	SSC		Very close
Brandt's cormorant	*Urile penicillatus*	BCC		Nearby
Double-crested cormorant	*Phalacrocorax auritus*	WL		On site
American white pelican	*Pelacanus erythrorhynchos*	SSC1, BCC		Very close
California brown pelican	*Pelecanus occidentalis californicus*	FP		In region
Least bittern	*Ixobrychus exilis*	SSC2		In region

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
White-faced ibis	*Plegadis chihi*	WL		Nearby
Turkey vulture	*Cathartes aura*	BOP		On site
Osprey	*Pandion haliaetus*	WL, BOP		Very close
White-tailed kite	*Elanus luecurus*	CFP, BOP		On site
Golden eagle	*Aquila chrysaetos*	BGEPA, CFP, BOP, WL		On site
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP		On site
Sharp-shinned hawk	*Accipiter striatus*	WL, BOP		Very close
Cooper's hawk	*Accipiter cooperii*	WL, BOP		On site
American goshawk	*Accipiter atricapillus*	SSC2, BOP		In region
Bald eagle	*Haliaeetus leucocephalus*	CE, BGEPA		Very close
Red-shouldered hawk	*Buteo lineatus*	BOP		Very close
Swainson's hawk	*Buteo swainsoni*	CT, BOP		Very close
Red-tailed hawk	*Buteo jamaicensis*	BOP		On site
Ferruginous hawk	*Buteo regalis*	WL, BOP		On site
Rough-legged hawk	*Buteo lagopus*	BOP		Nearby
Barn owl	*Tyto alba*	BOP		Very close
Western screech-owl	*Megascops kennicotti*	BOP		Very close
Great horned owl	*Bubo virginianus*	BOP		Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2, BOP	Not likely	On site
Long-eared owl	*Asio otus*	BCC, SSC3, BOP		In region
Short-eared owl	*Asia flammeus*	BCC, SSC3, BOP		In region
Lewis's woodpecker	*Melanerpes lewis*	BCC		Very close
Nuttall's woodpecker	*Picoides nuttallii*	BCC		On site
American kestrel	*Falco sparverius*	BOP		On site
Merlin	*Falco columbarius*	WL, BOP		On site
Peregrine falcon	*Falco peregrinus*	BOP		Very close
Prairie falcon	*Falco mexicanus*	WL, BOP		Very close
Olive-sided flycatcher	*Contopus cooperi*	BCC, SSC2		Very close
Willow flycatcher	*Empidonax traillii*	CE		Very close

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Vermilion flycatcher	*Pyrocephalus rubinus*	SSC2		Nearby
Loggerhead shrike	*Lanius ludovicianus*	SSC2	Low to moderate	On site
Yellow-billed magpie	*Pica nuttalli*	BCC		Very close
Oak titmouse	*Baeolophus inornatus*	BCC		On site
California horned lark	*Eremophila alpestris actia*	WL		On site
Bank swallow	*Riparia riparia*	CT		In region
Purple martin	*Progne subis*	SSC2		In region
Wrentit	*Chamaea fasciata*	BCC		Very close
California thrasher	*Toxostoma redivivum*	BCC		Very close
Cassin's finch	*Haemorhous cassinii*	BCC		In region
Lawrence's goldfinch	*Spinus lawrencei*	BCC		On site
Grasshopper sparrow	*Ammodramus savannarum*	SSC2		Nearby
Alameda song sparrow	*Melospiza melodia pusillula*	BCC, SSC2		In region
Black-chinned sparrow	*Spizella atrogularis*	BCC		In region
Gray-headed junco	*Junco hyemalis caniceps*	WL		In region
Bell's sparrow	*Amphispiza b. belli*	WL		In region
Yellow-breasted chat	*Icteria virens*	SSC3		Nearby
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3		Nearby
Bullock's oriole	*Icterus bullockii*	BCC		On site
Tricolored blackbird	*Agelaius tricolor*	CT, BCC, SSC1	Low to none	Very close
Lucy's warbler	*Leiothlypis luciae*	SSC3, BCC		In region
Virginia's warbler	*Leiothlypis virginiae*	WL, BCC		In region
Yellow warbler	*Setophaga petechia*	SSC2		Very close
Summer tanager	*Piranga rubra*	SSC1		In region
Pallid bat	*Antrozous pallidus*	SSC, WBWG:H		In region
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG:H		In region
Canyon bat	*Parastrellus hesperus*	WBWG:L		In region
Big brown bat	*Episticus fuscus*	WBWG:L		In region
Silver-haired bat	*Lasionycteris noctivagans*	WBWG:M		In region
Western red bat	*Lasiurus blossevillii*	SSC, WBWG:H		In region

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Hoary bat	*Lasiurus cinereus*	WBWG:M		In region
Western small-footed myotis	*Myotis cililabrum*	WBWG:M		In range
Miller's myotis	*Myotis evotis*	WBWG:M		In region
Little brown myotis	*Myotis lucifugus*	WBWG:M		In region
Fringed myotis	*Myotis thysanodes*	WBWG:H		In range
Long-legged myotis	*Myotis volans*	WBWG:H		In range
Yuma myotis	*Myotis yumanensis*	WBWG:LM		In region
California myotis	*Myotis californicus*	WBWG:L		In region
Western mastiff bat	*Eumops perotis*	SSC, WBWG:H		In range
Mexican free-tailed bat	*Tadarida brasiliensis*	WBWG:L		In region
San Francisco dusky-footed woodrat	*Neotoma fuscipes annectens*	SSC		In region
Ringtail	*Bassariscus astutus*	CFP		In region
American badger	*Taxidea taxus*	SSC		Nearby
Mountain lion	*Puma concolor*	CCT		Nearby

[1] Listed as FC, FT or FE = federal candidate, threatened or endangered, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, CCT, CCE, CT or CE = California Candidate threatened or endangered, or California threatened or endangered, CFP = California Fully Protected (California Fish and Game Code 3511), SSC = California Species of Special Concern, SSC1, SSC2 and SSC3 = Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), WL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (CFG Code 3503.5), and WBWG = Western Bat Working Group with priority rankings, of low (L), moderate (M), and high (H).

POTENTIAL BIOLOGICAL IMPACTS

An impacts analysis should consider whether and how a proposed project would affect members of a species, larger demographic units of the species, the whole of a species, and ecological communities. The accuracy of this analysis depends on an accurate characterization of the existing environmental setting. In the case of the proposed project, the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, interference with wildlife movement, and wildlife-automobile collision mortality.

HABITAT LOSS

Habitat loss results in a reduced productive capacity of affected wildlife species, but the DEIR offers no prediction of this lost capacity for any of the wildlife species potentially affected. In the case of birds, two methods exist for estimating the loss of productive capacity that would be caused by the project. One method would involve surveys to count the number of bird nests and chicks produced. The alternative method would be to infer productive capacity from estimates of total nest density elsewhere.

Because the project is located within an area that has undergone severe habitat fragmentation, the habitat that remains in fragmented patches probably no longer supports its original productive capacity of wildlife (Smallwood 2015, Smallwood and Smallwood 2023). However, several studies have estimated total avian nest density at locations that had likewise been highly fragmented. Two study sites in grassland/wetland/woodland complexes within agricultural matrices had total bird nesting densities of 32.8 and 35.8 nests per acre (Young 1948, Yahner 1982) for an average 34.3 nests per acre. Assuming total nest density at the project site is about a third of that of the above-cited study sites due to the annual disking of the project site's interior areas, I predict SMP 38 (111.7 acres), SMP 39 (51.9 acres) and SMP 40 (41 acres) support 11.4 bird nests/acre/year. Based on this assumption, the combined projects, SMP 39 and SMP 40, on 92.9 acres would eliminate 1,059 nest sites, and assuming SMP 38 is also later developed, then the combined projects, SMP 38, SMP 39, and SMP 40, on 204.6 would eliminate 2,332 nest sites.

The loss of 1059 to 2,332 nest sites would easily qualify as a significant project impact that has not been quantitatively addressed in the DEIR. But the impact would not end with the immediate loss of nest sites as nest substrate is removed and foraging grounds graded in preparation for impervious surfaces. The reproductive capacity of the site would be lost. The average number of fledglings per nest in Young's (1948) study was 2.9. Assuming Young's (1948) study site typifies bird productivity, the project would prevent the production of 3,071 to 6,763 fledglings per year, depending on whether SMP 38 is developed. Assuming an average bird generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from an equation in Smallwood (2022): {(nests/year × chicks/nest × number of years) + (2 adults/nest × nests/year) × (number of years ÷ years/generation)} ÷ (number of years) = 3,495 to 7,696 birds per year denied to California, depending on whether SMP 38 is developed.

These losses of birds from California would be substantial, nearly equal to the annual loss of birds caused by wind turbine collision mortality in the nearby Altamont Pass Wind Resource Area (Adams Broadwell Joseph & Cardozo 8 January 2021 letter to Alameda County Planning Department regarding Comments on the Draft Subsequent Environmental Impact Report for the Mulqueeney Ranch Wind Repowering Project (SCH No. 2010082063), CUP Application No. PLN2019-00226). These losses would be highly significant.

INTERFERENCE WITH WILDLIFE MOVEMENT

One of CEQA's principal concerns regarding potential project impacts is whether a proposed project would interfere with wildlife movement in the region. Unfortunately, the DEIR's analysis of whether the project would interfere with wildlife movement in the region is flawed and misleading. According to the DEIR, "The project area does not fall within an Essential Habitat Connectivity area mapped by the CDFW." However, at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18486, the California Essential Habitat Connectivity Project specifically points out that it is not: "A California Department of Fish and Game or US Fish and Wildlife Service response to potential impacts to a habitat or species from a project subject to the California Environmental Quality Act (CEQA)," nor "Fine scale, with every important piece of habitat identified" nor ""Essential", meaning the only places of importance" nor "A solution by itself for how to provide necessary linkages for any given species of plant or animal... Linkage designs will vary depending on focal species chosen and the goal of providing connected habitat for a chosen species might be met several different ways" nor "The final word on connectivity for California." With analytical grid cells of 2,000 acres, the spatial grain of the California Essential Habitat Connectivity Project is much too coarse for the conclusion the DEIR draws from it.

The next flaw in the DEIR is in the argument that SMP 39 is cut off from open areas by well-trafficked roads, the airport, the gravel quarries, and therefore cannot function as a wildlife movement corridor. The same argument is made for SMP 40. On this point, the DEIR merely speculates, and offers no supporting evidence to its assertion. Monk & Associates (2021, 2023) report no survey methodology designed to determine whether wildlife rely on the site for movement in the region. They implemented no sampling regime nor a program of observation to record wildlife movement patterns. They failed to quantitatively or qualitatively analyze movement patterns of observed wildlife. Based on what is reported, Monk & Associates (2021, 2023) did not record or measure wildlife movement in any way. The conclusions of the DEIR regarding wildlife movement on the project site are speculative and conclusory.

On the other hand, the coyote I saw on site got there somehow, and so did the ground squirrels and pocket gophers, and so did all of the birds I saw on and over SMP 39. I observed hundreds if not thousands of gulls of multiple species flying in both easterly and westerly directions across SMP 38, SMP 39, and SMP 40. I observed Canada geese and Aleutian cackling geese flying to and from the quarry ponds and the project sites to forage. I saw a Cooper's hawk fly from the airport to SMP 39 to forage, crossing the well-trafficked road in about 2 seconds of flight time. Figure 3 illustrates that our telemetered

golden eagles from the Altamont Pass make frequent visits to the project site. That thousands of our golden eagle telemetry positions appear in the project area is consistent with the pattern that my co-investigators and I have noticed about golden eagle movement across California and beyond to other states and border nations, and that is that golden eagles carefully select open spaces as parts of their travel routes. The project area is important to golden eagle movement in the region, just as it is important to the 10 special-status species I observed on the project site, and to the 19 special-status species so far documented on the project site. Th evidence is overwhelming that the project site is important to wildlife movement in the region. Losing the open space of this site would be devastating to many species of wildlife, including to golden eagle.

Furthermore, whether the site includes or is within a wildlife movement corridor is not the only consideration when it comes to the standard CEQA Checklist question of whether the project would interfere with wildlife movement in the region. The primary phrase of the CEQA standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, a site such as the project site is critically important for wildlife movement because it composes an increasingly diminishing area of open space within a growing expanse of anthropogenic uses, forcing more species of volant wildlife to use the site for stopover and staging during migration, dispersal, and home range patrol (Warnock 2010, Taylor et al. 2011, Runge et al. 2014). The project, due to its elimination of at least 92.9 acres of open space, and more realistically 204.6 acres of open space, and due to its insertion of multiple new buildings into the aerospace currently used by birds, bats and butterflies. would cut wildlife off from one of the last remaining stopover and staging opportunities in the region, forcing volant wildlife to travel even farther between remaining stopover sites. This impact would be significant, and as the project is currently proposed, it would be unmitigated.

TRAFFIC IMPACTS TO WILDLIFE

Project-generated traffic would endanger wildlife that must, for various reasons, cross roads used by the project's traffic to get to and from the project site (Photos 22—26), including along roads far from the project footprint. Vehicle collisions have accounted for the deaths of many thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

The nearest study of traffic-caused wildlife mortality was performed only 11 miles away, along a 2.5-mile stretch of Vasco Road in Contra Costa County, California. Fatality searches in this study found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needs to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality

searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study I completed next to Vasco Road concurrent to the Mendelsohn et al. study (Brown et al. 2016). Brown et al.'s (2016) adjustment factors for carcass persistence resembled those of Santos et al. (2011), which were derived from carcasses placed along roads. Applying searcher detection rates from Brown et al. (2016), the adjusted total number of fatalities was estimated at 12,187 animals killed by traffic on the reach of road that was studied. This fatality number over 1.25 years and 2.5 miles of road translates to 3,900 wild animals per mile per year. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic generated by the project site would similarly result in local impacts on wildlife.

Photo 22. A Gambel's quail dashes across a road on *3 April 2021. Such road crossings are usually successful, but too often prove fatal to the animal. Photo by Noriko Smallwood*.

Photo 23. California ground squirrel in the middle of an eastern Alameda County road on 13 March 2014.

Photo 24. Western Pacific rattlesnake on an eastern Alameda County road, 23 August 2011. Photo by Shawn Smallwood.

Photo 25. Mourning dove killed by vehicle on a California road. Photo by Noriko Smallwood, 21 June 2020.

Photo 26 Raccoon killed on Road 31 just east of Highway 505 in Solano County. Photo taken on 10 November 2018.

For wildlife vulnerable to front-end collisions and crushing under tires, road mortality can be predicted from the study of Mendelsohn et al. (2009) as a basis, although it would be helpful to have the availability of more studies like that of Mendelsohn et al. (2009) at additional locations. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,900 animals killed per mile along a county road in Contra Costa County. Two percent of the estimated number of fatalities were birds, and the balance was composed of 34% mammals (many mice and pocket mice, but also ground squirrels, desert cottontails, striped skunks, American badgers, raccoons, and others), 52.3% amphibians (large numbers of California tiger salamanders and California red-legged frogs, but also Sierran treefrogs, western toads, arboreal salamanders, slender salamanders and others), and 11.7% reptiles (many western fence lizards, but also skinks, alligator lizards, and snakes of various species). VMT is useful for predicting wildlife mortality because I was able to quantify miles traveled along the studied reach of Vasco Road during the time period of the Mendelsohn et al. (2009), hence enabling a

rate of fatalities per VMT that can be projected to other sites, assuming similar collision fatality rates.

From October 2016 through December 2019, I maintained my own database of wildlife mortality I encountered on Vasco Road between Marsh Creek Road and Livermore, which encompassed the wildlife mortality study site of Mendelsohn et al. (2009). Table 3 includes the wildlife I found as fatalities, and it compares my crudely calculated ratio of observed fatalities per mile. From Table 3, it is apparent that mortality along the reach of road studied by Mendelsohn et al. (2009) was relatively low compared to the rest of Vasco Road: $^{19.178}/_{13.200} = 5{,}667$ fatalities per mile predicted for the 14.1 miles of Vasco Road that were not studies by Mendelsohn et al. (2009).

Table 3. Fatalities I found along Vasco Road from October 2016 though December 2019, and along 14.1 miles of road that was not studied by Mendelsohn et al. (2009) and 2.5 miles that were studied.

		Observed fatalities		Observed fatalities/mile	
Common name	Scientific name	14.1 miles offsite	2.5- mile study site	14.1 miles offsite	2.5-mile study site
Alligator lizard	*Elgaria multicarinata*	1		0.068	0.000
American badger	*Taxidea taxus*	3	2	0.205	0.800
American crow	*Corvus brachyrhynchos*	2		0.137	0.000
Barn owl	*Tyto alba*	21	2	1.438	0.800
Bird (Scrub-jay sized)		1		0.068	0.000
Blackbird	*Agelaius*	2		0.137	0.000
Black-tailed jackrabbit	*Lepus californicus*	2		0.137	0.000
Bobcat	*Felis rufus*	2		0.137	0.000
Buffelhead	*Bucephala albeola*	1		0.068	0.000
California kingsnake	*Lampropeltis getula californiae*		1	0.000	0.400
Common poorwill	*Phalaenoptilus nuttallii*	1		0.068	0.000
Coyote	*Canis latrans*	29	2	1.986	0.800
Desert cottontail	*Sylvilagus audubonii*	66	5	4.521	2.000
Gopher snake	*Pituophis c. catenifer*	15	2	1.027	0.800
Ground squirrel	*Otospermophilus beecheyi*	23	3	1.575	1.200
Gull	*Laridae*	1	1	0.068	0.400
Helmeted guineefowl	*Numida meleagris*	3		0.205	0.000
House cat	*Felis catus*	1		0.068	0.000
Kangaroo rat	*Dipodomys*	1		0.068	0.000
Large white bird		1		0.068	0.000
medium-sized bird			1	0.000	0.400

Common name	Scientific name	Observed fatalities		Observed fatalities/mile	
		14.1 miles offsite	2.5- mile study site	14.1 miles offsite	2.5-mile study site
medium-sized mammal		2		0.137	0.000
Mule deer	*Odocoileus hemionus*	5		0.342	0.000
Muskrat	*Ondatra zibethicus*	1		0.068	0.000
Northern harrier	*Circus hudsonicus*	1		0.068	0.000
Osprey	*Pandion haliaetus*	1		0.068	0.000
Pocket gopher	*Thomomys bottae*	1		0.068	0.000
Raccoon	*Procyon lotor*	25	5	1.712	2.000
Western Pacific rattlesnake	*Crotalus oreganus*	2		0.137	0.000
Red fox	*Vulpes vulpes*	1		0.068	0.000
Red-tailed hawk	*Buteo jamaicensis*	5		0.342	0.000
Red-winged blackbird	*Agelaius phoenecius*	1		0.068	0.000
Rock pigeon	*Columba livea*	1		0.068	0.000
Short-eared owl	*Asio flammeus*	1		0.068	0.000
Snake		1		0.068	0.000
Striped skunk	*Mephitis mephitis*	41	9	2.808	3.600
Turkey vulture	*Cathartes aura*	1		0.068	0.000
Virginia opossum	*Didelphis virginiana*	7		0.479	0.000
Western meadowlark	*Sturnella neglecta*	1		0.068	0.000
Wild turkey	*Meleagris gallopavo*	6		0.411	0.000
Total		280	33	19.178	13.200

Predicting project-generated traffic impacts to wildlife

The DEIR predicts the project would generate 8,622,395 annual VMT. During the Mendelsohn et al. (2009) study, 19,500 cars traveled Vasco Road daily, so the vehicle miles that contributed to my estimate of non-volant fatalities was 19,500 cars and trucks × 2.5 miles × 365 days/year × 1.25 years = 22,242,187.5 vehicle miles per 12,187 wildlife fatalities, or 1,825 vehicle miles per fatality. This rate divided into the predicted annual VMT, above, would predict 4,725 vertebrate wildlife fatalities per year. My analysis of data in Table 3 suggests that the project-caused mortality along local roadways would be even higher.

Based on my analysis, the project-generated traffic would cause substantial, significant impacts to wildlife. The DEIR does not address this potential impact, let alone propose to mitigate it. Mitigation measures to improve wildlife safety along roads are available and are feasible, and they need exploration for their suitability with the proposed project. Given the predicted level of project-generated, traffic-caused mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts. The DEIR should be withdrawn

from circulation and revised to appropriately analyze the potential impacts of project-generated automobile traffic on wildlife.

CUMULATIVE IMPACTS

The DEIR attempts to minimalize the project's contributions to cumulative impacts to biological resources by asserting that "ruderal herbaceous land is not considered sensitive wildlife habitat." However, CEQA does not require that the habitat that would be lost to a project be labeled as sensitive; no such standard exists.

The DEIR presents a flawed analysis of cumulative impacts, including to biological resources. The DEIR asserts that it "sets forth mitigation measures to ensure all potential project-specific impacts that would occur to biological resources are reduced to a less-than-significant level." And therefore, "the proposed project would not result in substantial adverse effects to biological resources protected by CEQA." The DEIR contrives the false standard that a given project impact is cumulatively considerable only when it has not been fully mitigated at the project level. The DEIR implies that cumulative impacts are really residual impacts left over by inadequate mitigation of project impacts. This notion of residual impacts being the source of cumulative impacts is inconsistent with CEQA's definition of cumulative effects. Individually mitigated projects do not negate the significance of cumulative impacts. If they did, then CEQA would not require a cumulative effects analysis. To summarize, the DEIR presents no cumulative effects analysis as defined in two ways by CEQA.

MITIGATION

Western Burrowing Owl

4.3-2(a) If project construction begins during the western burrowing owl nesting season (February 15 to August 31), a qualified biologist shall conduct targeted burrowing owl nest surveys within 14 days prior to construction activities using seven- to 20-foot transects. ... The survey shall ... follow CDFW guidelines outlined in the 2012 Staff Report on Burrowing Owl Mitigation.

The avian breeding season recognized by the CDFW is now 1 February through 15 September. The DEIR should be revised accordingly.

Whereas I concur that preconstruction, take-avoidance surveys should be completed, the DEIR falsely characterizes preconstruction surveys as detection surveys by insinuating that conducting preconstruction surveys without first having completed detection surveys would follow CDFW guidelines. Detection surveys are entirely different than preconstruction surveys, and are implemented to achieve a different set of objectives. Contrary to the DEIR's implication, preconstruction surveys are not designed to detect burrowing owls with anywhere close to the same likelihood as are protocol-level detection surveys that are designed for this purpose. It would be very easy for a preconstruction survey to fail to detect burrowing owls that are in fact present. Therefore, implementing a preconstruction survey as a surrogate for detection surveys would be reckless and would fail to meet the minimum standard of care for wildlife

protection. In any case, preconstruction surveys need to be implemented after completion of detection surveys per CDFW (2012).

Tricolored Blackbird

4.3-2(c) Prior to any ground disturbance on SMP 40, a qualified biologist shall conduct a preconstruction survey in all accessible areas identified as supporting potential tricolored blackbird nesting habitat. The survey shall document the current, and to the extent possible, historical presence or absence of nesting colonies of tricolored blackbird. …

Whereas I concur that preconstruction, take-avoidance surveys should be completed, a detection survey is needed first to inform the readers of the DEIR of whether and where tricolored blackbirds occur on or near the project sites. A detection survey would likely also improve the efficacy of the preconstruction survey.

Nesting Birds and Raptors (Including Loggerhead Shrike)

4.3-2(d) If project construction begins during the nesting season (February 1 to August 31), a qualified biologist shall conduct a nesting bird survey within 7 days prior to construction activities. … If migratory birds are identified nesting on or within the zone of influence, … A qualified biologist shall establish a temporary protective nest buffer around the nest(s). The nest buffer shall be staked with orange construction fencing. The buffer must be of sufficient size to protect the nesting site from construction-related disturbance and shall be established by a qualified ornithologist or biologist with extensive experience working with nesting birds near and on construction sites.

Typically, adequate nesting buffers are 75 feet from the nest site or nest tree dripline for small birds and up to 300 feet for sensitive nesting birds that include several raptor species known in the region of the project site but that are not expected to occur on the project site. Upon completion of nesting surveys, if nesting birds are identified on or within a zone of influence of the project site, a qualified ornithologist/biologist that frequently works with nesting birds shall prescribe adequate nesting buffers to protect the nesting birds from harm while the project is constructed.

First, the avian breeding season recognized by the CDFW is now 1 February through 15 September. The DEIR should be revised accordingly.

Second, whereas I concur that preconstruction, take-avoidance surveys should be completed, in my experience the majority of bird nests would not be found by biologists assigned to the survey. For instance, I surveyed for grassland nesters as part of an intensive survey effort that I performed from March through mid-August 2023 on a Central Valley site. I surveyed the site 30 times. I found that the nests of grassland birds are the most difficult to locate. Cavity nesters can more effectively defend their nests against predators, whereas ground nesters are highly vulnerable to predation, and thus the most cryptic of nesters. Ground nesters, which include bird species that occur at the project site, are highly adept at concealing their nests both physically and behaviorally. Based on my experience, it is highly likely that preconstruction survey would fail to find

any of the nests of ground-nesting birds that truly occur on the project site. The DEIR's implication that preconstruction survey would reduce potential impacts to nesting birds to less-than-significant is unsubstantiated by evidence in the DEIR.

The mitigation measure appears to be specifically directed toward loggerhead shrike, presumably because this special-status species was detected during a reconnaissance survey of SMP 40. Finding the nests of loggerhead shrikes is particularly difficult, as this species is expert at deceiving observers as to the whereabouts of their nests (Smallwood and Smallwood 2021). To adequately survey for nest sites of loggerhead shrike, many surveys are needed, and the survey methods need to include long sessions of visual-scans, preferably from blinds such as automobiles. Observers would need to be experienced in bird behavior, and capable of tracking the movements of individual loggerhead shrikes. A preconstruction survey for loggerhead shrike nest would be ineffective by having inexperienced biologists walk back and forth along transects.

Third, the mitigation language (second italicized paragraph above) allows a single individual to make a subjective decision, outside the public's view, to determine the buffer area for any given species. This measure lacks objective criteria, and is unenforceable.

Even assuming some or even all of the nests would be found and salvaged, this benefit to birds nesting on site would apply only to a single breeding season of nesters. The project would nevertheless eliminate the site's productive capacity to birds.

SMP 40 and Trail Connection Option 2
4.3-3(c) Prior to the commencement of ground-disturbing activities for SMP 40 or Trail Connection Option 2, … [Six minimization and mitigation measures follow, one of which is] *… the riparian corridor of Arroyo Mocho, disturbed areas shall be revegetated with native riparian plant species. Replacement of riparian trees to be removed shall be planted near the creek as feasible and/or adjacent to the existing limits of the riparian corridor to contribute to the existing riparian canopy. Riparian plantings shall be maintained for a minimum of 5 years to ensure that the canopy is enhanced and the understory restored.*

Trail Connection Option 2 – Undercrossing at Isabel Bridge
4.3-3(d) Prior to initiation of any groundbreaking activity associated with Trail Connection Option 2, … The project applicant shall ensure that the proposed project replaces, restores, or enhances on a "no net loss" basis (in accordance with the RWQCB) the acreage of all riparian habitat and waters of the State that would be removed, lost, and/or degraded due to project implementation by methods agreeable to the RWQCB and the City, as appropriate, depending on agency jurisdiction, and as determined during the Section 401 permitting processes. Methods include, but are not limited to implementation of a riparian enhancement planting plan and/or tree planting mitigation at a 1:1 ratio, or as otherwise prescribed by the RWQCB.

Trail Connection Option 2 – Undercrossing at Isabel Bridge

4.3-3(e) If it is determined that work below the OHWM cannot be avoided for Trail Connection Option 2, … Waters that would be lost or disturbed shall be restored, replaced, or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement, including the purchase of credits from a USACE approved mitigation bank at a 1:1 ratio, shall be at a location and by methods acceptable to the USACE.

I concur that all of the measures described above should be implemented if the project goes forward. However, these measure alone would be inadequate. Also needed is monitoring of wildlife that is integrated with thresholds of success and failure. If thresholds of failure are exceeded, then the City should be required to take additional steps to achieve success. To this end, an adequate performance bond should be provided by the applicant to the City.

RECOMMENDED MEASURES

Road Mortality: Compensatory mitigation is needed for the increased wildlife mortality that would be caused by bird-window collisions and the project-generated road traffic in the region. I suggest that this mitigation can be directed toward funding research to identify fatality patterns and effective impact reduction measures such as reduced speed limits and wildlife under-crossings or overcrossings of particularly dangerous road segments. Compensatory mitigation can also be provided in the form of donations to wildlife rehabilitation facilities (see below).

Fund Wildlife Rehabilitation Facilities: Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Many animals would likely be injured by collisions with automobiles traveling to and from the project's buildings.

Landscaping: If the project goes forward, California native plant landscaping (i.e., chaparral, grassland, and locally appropriate scrub plants) should be considered to be used as opposed to landscaping with lawn and exotic shrubs. Native plants offer more structure, cover, food resources, and nesting substrate for wildlife than landscaping with lawn. Native plant landscaping has been shown to increase the abundance of arthropods which act as importance sources of food for wildlife and are crucial for pollination and plant reproduction (Narango et al. 2017, Adams et al. 2020, Smallwood and Wood 2022.). Further, many endangered and threated insects require native host plants for reproduction and migration, e.g., monarch butterfly. Around the world, landscaping with native plants over exotic plants increases the abundance and diversity of birds, and is particularly valuable to native birds (Lerman and Warren 2011, Burghardt et al. 2008, Berthon et al. 2021, Smallwood and Wood 2022). Landscaping with native plants is a way to maintain or to bring back some of the natural habitat and lessen the footprint of urbanization by acting as interconnected patches of habitat for wildlife (Goddard et al. 2009, Tallamy 2020). Lastly, not only does native plant landscaping benefit wildlife, it requires less water and maintenance than traditional landscaping with lawn and hedges.

Thank you for your consideration,

_____
Shawn Smallwood, Ph.D.

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December 12, 2023

Stephanie Papayanis, Esq.
Mitchel M. Tsai, Attorney at Law
139 South Hudson Avenue, Suite 200
Pasadena CA 91101
stephanie@mitchtsailaw.com

Subject: **City of Livermore SMP 38/SMP 39/SMP 40 Project**
Review of DEIR Noise Section & Appendices

Dear Stephanie:

We have completed a review of Section 4.6 (Noise), as well as Appendices J and K (Environmental Noise Assessments) of the Draft Environmental Impact Report for the City of Livermore SMP 38/SMP 39/SMP 40 Project, focusing on the adequacy of the noise impact analyses. Here are our findings:

OVERVIEW

Section 4.6 of the DEIR is based on environmental noise assessments prepared by Salter.

- Significance Standards

  The DEIR significance standards for noise and vibration impacts are based directly on Section XIII of the Environmental Checklist in Appendix G of the current CEQA Guidelines, which reads as follows:

  XIII. NOISE - Would the project result in:

  a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of the local general plan or noise ordinance, or applicable standards of other agencies?

  b) Generation of excessive groundborne vibration or groundborne noise levels?

  c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?

  Salter has proposed a 3 dBA increase in ambient noise levels as the threshold for a "substantial increase". We concur that this is a reasonable value for CEQA evaluation of this project.

- Operational Noise & Construction Vibration

  The analysis in Section 4.6 shows that noise impacts from operational noise (loading dock activity, HVAC, on-site vehicle movements) as well as vibration during on-site construction are less-than-significant. Generally, the analysis supporting this finding appears to be methodical and well done, consistent with current CEQA Guidelines, and we take no exception to it.

- Construction Noise Impacts

  Section 4.6 also includes an analysis of construction noise impacts on the nearest sensitive uses – i.e.: the single-family residential neighborhood to the east of the project sites. This analysis covers on-site construction activity for SMP 40 as well as the construction of off-site trail connections at three potential locations (each within 200-feet of the nearest residential use).

The impact of construction noise on the SMP 39 site is not covered in the DEIR.

For the off-site trail connection construction, the DEIR states that noise impacts are significant without mitigation and provides a list of mitigation measures (4.6-1) to reduce this impact to less-than-significant level. Generally, we agree with this finding and the proposed mitigation measures.

For on-site construction, the DEIR states that noise impacts will be less-than-significant. However, the analysis presented in the DEIR does not – in our opinion – adequately support this conclusion, for the reasons outlined below.

PROBLEMS WITH THE ON-SITE CONSTRUCTION NOISE IMPACT ANALYSIS

- <u>SMP 39 is Excluded</u>

  Construction noise from the SMP 39 site is not included in the analysis in Section 4.6 of the DEIR. An explanation for this omission is provided in the final paragraph on page 4.6-21, which reads in part:

  "Due to the substantial distance between SMP 39 and the sensitive noise receptors, it was anticipated that construction noise associated SMP 39 would be below the City of Livermore's exterior noise level threshold of 60 dBA DNL at the nearest sensitive receptor locations. Thus, construction noise levels for SMP 39 were not evaluated as part of the Environmental Noise Study for SMP 39."

  There are two problems with this explanation:

  First, CEQA requires an actual analysis to show whether a project impact is significant or less-than-significant. Simply "anticipating" that there will be no significant impact falls short of the standard required for a CEQA study.

  Second, the 60 dBA DNL exterior noise standard (which comes from the land-use compatibility table in the Noise Element of the City of Livermore General Plan) is only one of the applicable local regulations. The DEIR analysis should address all applicable regulations in both the General Plan and Municipal Code.

- <u>Analysis for SMP 40 is Incomplete</u>

  The noise impact analysis for construction on the SMP 40 site compares Salter's noise level predictions with instantaneous maximum noise level (Lmax) limits of 70 dBA during the day and 60 dBA at night, which are taken from Policy N-1.5.P3 of the City of Livermore General Plan.

  However, these Lmax noise limits are not the only local regulations that would apply to construction noise on the SMP 40 site.

  For example, the DEIR does not show how construction noise from SMP 40 would compare to Policy N-1.5.P2 of the General Plan, which prescribes the following noise limits, depending on the cumulative duration of the noise:

Daytime Noise Limit (7AM – 10PM)	Nighttime Noise Limit (10PM – 7AM)	Cumulative Duration
60 dBA	50 dBA	No more than 15-minutes in any hour.
65 dBA	55 dBA	No more than 5-minutes in any hour.
70 dBA	60 dBA	No more than 1-minute in any hour.

Similarly, the DEIR does not include an DNL analysis for construction noise from SMP 40 to show that it will be below the 60 dBA exterior noise standard taken from land-use compatibility table (Table 9-7) in the General Plan. This will be particularly important if any construction work is to occur at night.

- <u>There is an Error in the Calculations for SMP 40</u>

  Table 4.6-6 of the DEIR lists estimated Lmax noise levels for various pieces of construction equipment at a distance of 50-feet (these are standard reference values, taken from the FHWA Construction Noise Handbook) and extrapolates them to a distance of 884 feet.

  According to Table 4.6-6, the equipment noise levels received at a distance of 884 are 57 dBA lower than lower than those received at a distance of 50-feet. This is incorrect. According to the radiation equation for point sources (such as individual pieces of construction equipment) the reduction in noise level from 50-feet to 884 feet is:

  $10 \times LOG_{10}(884/50) = 25$ dBA

  So, the estimated Lmax noise levels provided in Table 4.6-6 are 32 dBA lower than they should be. Which means that noise from several of the pieces of equipment listed should be expected to produce a maximum level of noise at the nearest residences that is either right at the 60 dBA nighttime limit or, in the case of paving equipment, 4 dBA above it.

- <u>Construction on the East Side of the SMP 40 Site is Overlooked</u>

  The construction noise analysis in the DEIR for SMP 40 considers assumes receivers 884-feet away from the equipment – which is the distance between the location proposed for Building 2 and the nearest residences. However, there will be certain phases of construction – such as site preparation and paving/landscaping/site concrete – when noisy equipment could be operating closer than 884-feet from nearby residential uses.

  For example, the eastern corner of the SMP 40 site is within 600-feet of the nearest residential use. Received noise levels at a distance of 600-feet from the equipment would be 3 dBA higher than those received at 884-feet, which means that the expected noise level at the nearest residences when paving equipment is in use in the eastern corner of the site would be 67 dBA, Lmax and not 32 dBA, Lmax as reported in Table 4.6-6.

SUMMARY & RECOMMENDATIONS

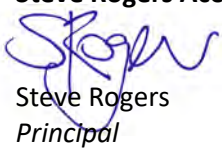
We find that, while much of the noise analysis in the DEIR has been done to the standard expected of a CEQA study, the evaluation of noise impacts during the construction phases is incomplete and contains a significant calculation error. We therefore recommend that the preparers be requested to revise/correct the Noise Section (4.6) of the DEIR as follows:

- Include SMP 39 in the on-site construction noise impact analysis. The analysis should take account of the anticipated number of pieces of equipment in use at any one time during each phase as well as estimated usage factors, so that construction noise impacts can be evaluated in the in the context of the City of Livermore General Plan DNL 60 dBA exterior noise standard (from Table 9-7) and the time-dependent noise limits in Policy N-1.5.P2, as well as the Lmax noise limits in Policy N-1.5.P3.
- For on-site construction on the SMP 40 site, the noise impact analysis should be expanded to take account of the anticipated number of pieces of equipment in use at any one time during each phase as well as estimated usage factors, so that construction noise impacts can be evaluated in the in the

context of the City of Livermore General Plan DNL 60 dBA exterior noise standard (from Table 9-7) and the time-dependent noise limits in Policy N-1.5.P2, as well as the Lmax noise limits in Policy N-1.5.P3.

- Table 4.6-6 should be revised to show the correct (25 dBA) reduction in point-source noise levels from 50-feet to 884-feet.
- Provide additional analysis for any construction activity on the SMP 40 site (such as site preparation, paving/landscaping) that could occur closer than 884-feet from the nearest residential use.

Yours sincerely,
Steve Rogers Acoustics, LLC



Steve Rogers
Principal

Attachment 2

SMP 39 Revised Environmental Noise Study

SMP-39 Site

Livermore, CA

UPDATE TO ENVIRONMENTAL NOISE STUDY

4 March 2024

Prepared for: Timur Tecimer
Overton Moore Properties
19700 S Vermont Avenue Suite #101
Torrance, CA 90502
ttecimer@omprop.com

Jennifer Freedman
Overton Moore Properties
19700 S Vermont Avenue Suite #101
Torrance, CA 90502
jfreedman@omprop.com

Prepared by: **Salter**
Diego Hernandez – Associate — dhernandez@salter-inc.com
Ethan Salter – Vice President — esalter@salter-inc.com

Salter Project 23-0142

INTRODUCTION

This report summarizes our environmental noise study of future traffic and loading dock activities from the proposed 6-building warehouse facility along Jack London Boulevard, south of Livermore Airport and west of Discovery Drive in Livermore, California. The purpose of the study was to determine the estimated growth in traffic noise levels resulting in the loading dock trucking activity and if traffic noise impacts from the proposed facility will meet the relevant requirements of the City General Plan Noise Element and Noise Ordinance.

EXECUTIVE SUMMARY

- Noise from the project's loading docks, future intra-project vehicle traffic, and likely HVAC equipment will increase CNEL[1] or DNL[2] noise levels at noise-sensitive receiver locations by 1 dB. An increase of 3 dB or less DNL is not expected to be noticeable and is not considered significant.
- Noise from project-created traffic would not result in a significant increase in noise levels on Jack London Boulevard or Isabel Avenue at adjacent properties.
- Temporary construction noise will be consistent with the City's Noise Ordinance and will not exceed the criteria established by General Plan Noise Objectives N-1.1 and N-1.5.

REPORT ORGANIZATION

This report contains the following sections:

- Project Site
- Acoustical Criteria
- Existing Noise Environment
- Noise Impact Assessment
  - Construction Noise
  - Loading Dock and Intra-Project Traffic Noise (Parking Lot)
  - Tenant HVAC Equipment Noise

[1] Community Noise Equivalent Level (CNEL) – A descriptor for the 24-hour A-weighted average noise level. The CNEL concept accounts for the increased acoustical sensitivity of people to noise during the evening and nighttime hours. Sound levels during the hours from 7 pm to 10 pm are penalized 5 dB; sound levels during the hours from 10 pm to 7 am are penalized 10 dB. A 10-dB increase in sound level is perceived by people to be a doubling of loudness.

[2] Day-Night Average Sound Level (DNL) – A descriptor established by the U.S. Environmental Protection Agency to describe the average day-night level with a penalty applied to noise occurring during the nighttime hours (10 pm - 7 am) to account for the increased sensitivity of people during sleeping hours. Also noted as Ldn. The difference between CNEL and DNL is often less than 1 dB.

PROJECT SITE

The proposed project will have a total lot area of approximately 47.86 acres, located south of West Jack London Boulevard. It is bounded by the Livermore Airport to the north, and Discovery Drive to the east, in the City of Livermore.

There will be six warehouse buildings totaling 2,084,953 square feet with 104 total loading docks. The site is adjacent to existing office and warehouse facilities to the east, approximately 850 feet away. An industrial quarry is located to the south. There are no noise-sensitive residential properties within 2,300 feet of the project site.

ACOUSTICAL CRITERIA

The following are project criteria and/or guidelines for the City of Livermore and State of California.

City of Livermore 2003-2025 General Plan Noise Element

Policy P4, Objective N-1.1

The Noise Element of the Livermore General Plan (Chapter 9, Policy P4 of Objective N-1.1) contains land use compatibility guidelines for environmental noise in the community. Table 1, below, summarizes these guidelines for residential and industrial land uses[3] in terms of CNEL or DNL. The definitions of each land use category follow below the table.

Table 1: Summary of Table 9-7 – Land Use Compatibility Guidelines for Community Noise CNEL or DNL, dB

Land Use Category	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential Low-Density[4], Single-family, Duplex, Mobile Homes	≤60	55-70	70-75	>75
Industrial, Manufacturing, Utilities, Agricultural	≤75	70-80	>75	--

[3] Table 9-7 of the Noise Element, page 9-27.

[4] Per General Plan Noise Ordinance Objective N-1.4, Policy P4, the criterion for single-family residential back yards is 60 dB CNEL/DNL.

Normally Acceptable: *If the noise level is within the "normally acceptable" level, noise exposure would be acceptable for the intended land use. Development may occur without requiring an evaluation of the noise environment unless the use could generate noise impacts on adjacent uses.*

Conditionally Acceptable: *If the noise level is within the "conditionally acceptable" level, noise exposure would be conditionally acceptable; a specified land use may be permitted only after detailed analysis of the noise environment and the project characteristics to determine whether noise insulation or protection features are required. Such noise insulation features may include measures to protect noise-sensitive outdoor activity areas (e.g., at residences, schools, or parks) or may include building sound insulation treatments such as sound-rated windows to protect interior spaces in sensitive receptors.*

Normally Unacceptable: *If the noise level is within the "normally unacceptable" level, analysis and mitigation are required. Development should generally not be undertaken unless adequate noise mitigation options have been analyzed and appropriate mitigations incorporated into the project to reduce the exposure of people to unacceptable noise levels.*

Clearly Unacceptable: *New construction should not be undertaken unless all feasible noise mitigation options have been analyzed and appropriate mitigation incorporated into the project to adequately reduce exposure of people to unacceptable noise levels.*

Noise Element Objective N-1.5

Objective N-1.5 seeks to reduce the level of noise generated by "stationary mechanical and other noise-generating equipment". Policy P1 states that "the City shall require that industrial and commercial uses be designed and operated to avoid the generation of noise effects on surrounding land uses from exceeding the following noise levels for exterior environments, operating longer than half an hour per hour:

- 55 dBA[5] L50[6] (7:00am to 10:00pm)
- 45 dBA L50 (10:00pm to 7:00am)

Policy P2 allows short-term events to have levels louder than those cited above. For events that occur less than 15 minutes per hour, levels can be increased by 5 dBA; events no more than 5 minutes per hour are allowed an additional 10 dBA, and those taking place one minute or less per hour are allowed an additional 15 dBA. Policy P4 allows an exemption from Policy P1 for motor vehicles on public streets between the hours of 7:00am and 8:00pm. We understand that Policies P1, P2, and P4 could apply to the noise from backup alarms (aka "beepers" or "squawkers").

[5] A-Weighted Sound Level – The A-weighted sound pressure level, expressed in decibels (dB). Sometimes the unit of sound level is written as dB(A). A weighting is a standard weighting that accounts for the sensitivity of human hearing to the range of audible frequencies. People perceive a 10 dB increase in sound level to be twice as loud.

[6] L50 – The noise level exceeded 50% of the time. For a discussion of environmental acoustics, please refer to Appendix A.

Objective N-1.5 specifically describes "stationary source noises", so when referring to L_{50} noise levels we analyzed the noise of trucks that are expected to sit in the loading dock area, estimated to be at least 2,395 feet from the nearest residence.

Policy P3 establishes instantaneous maximum noise levels allowed (Lmax[7]) of 70 dBA during the day and 60 dBA during the night.

California Department of Transportation (CalTrans) Construction Vibration Criteria

The California Department of Transportation[8] (DOT) provides vibration guidelines for two scenarios: human perception and construction damage. These tables are included below as guidelines for potential project vibration levels. "Transient" vibrations are classified as impulsive events that are short in duration (e.g., debris falling, blasting). "Continuous" vibrations are more sustained vibration events over longer periods of time (e.g., jackhammering, drilling). Table 2 describes the human response to different levels of ground-borne vibration for transient and continuous events.

Table 2: Guideline Vibration Annoyance Potential Threshold Criteria[9]

Human Response	Maximum PPV[10] (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.00	0.40

Table 3 provides a guideline for vibration criteria to assess the damage potential from ground vibration induced by construction equipment. Thresholds for continuous vibrations are lower than those for transient vibrations and are therefore considered more "conservative". These are standard significance thresholds used in the industry to determine impacts of ground borne vibrations on structures.

7 L_{max} (Maximum Sound Level) – The maximum sound level for a specified measurement period of time as defined in ASTM E1686.

8 Transportation and Construction Vibration Guidance Manual September 2013 (DOT Document).

9 This is Table 20 from the DOT document.

10 (PPV): Peak Particle Velocity.

Table 3: Guideline Vibration Damage Potential Threshold Criteria[11]

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

The immediate adjacent properties are all modern industrial or commercial buildings. Across Isabel Avenue/Highway 84 to the east are existing single-family residences. Based on Table 3, we have applied the more stringent residential criteria of 1.0 PPV for transient events and 0.50 PPV for continuous events.

State of California CEQA Guidelines and Impact Criteria

The California Environmental Quality Act (CEQA) contains guidelines that evaluate the significance of noise attributable to a proposed project. This would include (but is not limited to) added traffic noise, mechanical equipment noise, and construction noise. CEQA asks the following applicable questions. Would the project result in:

1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
2. Generation of excessive ground borne vibration or ground borne noise levels?
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public-use airport, would the project expose people residing or working in the project area to excessive noise levels?

CEQA does not define the noise level increase that is considered "substantial". Typically, the local general plan would establish limits with respect to allowable noise and vibration increases. However, the City of Livermore General Plan does not contain numerical standards of significance for noise increases. For the items above, noise level increases of 3 dBA or less are generally considered less-than-significant. Substantial adverse community response would be expected only for increases of 5 dBA or more.

11 This is Table 19 of the DOT document.

EXISTING NOISE ENVIRONMENT

Project Site Description

To quantify the existing site noise environment, a monitor continuously measured noise levels along Jack London Boulevard on 5 and 10 April 2023. **Table 4** shows a summary of the measured data. **Figure 1**, attached, shows the approximate measurement location.

Table 4: Measured Environmental Noise Levels

Site	Location	DNL (dB)	Leq(h) (dB)
LT-1	Jack London Boulevard, approximately 12-feet above grade	75	76

Site Noise Context

Noise measurements at the project site (see **Figure 1**), collected data from vehicle pass-bys on Jack London Boulevard. The measured on-site noise level was DNL 75 dB (see **Figure 1**). LT-1 was placed on the closest access utility pole across from the future site on Jack London Boulevard. Adjustments were made, as appropriate, to estimate the change in noise levels from the long-term monitor location to the locations of the nearest residences east of Isabel Avenue.

We have combined cumulative existing and future noise sources that would result from the project's completion. Future project sources include the proposed loading dock noise, rooftop HVAC equipment, parking areas, and estimated traffic contribution, while the existing noise sources are the existing traffic. Adding expected noise contribution to the existing noise environment logarithmically would result in a noise level of approximately **DNL 75 dB** from all contributing noise sources upon the project's completion.

DNL **30**[a] dB [HVAC] + DNL **32**[b] dB [employee lot] + DNL **50**[c] dB [trucks] = DNL **50**[d] dB [future noise level at receivers]

a = cumulative building rooftop HVAC noise
b = employee parking lot noise
c = loading dock truck noise

d = cumulative future project sources

DNL **67**[e] dB [existing traffic] + DNL **50**[e] dB [combined future sources] **=** DNL **67**[f] dB [future noise level at receivers]

e = measured at project site, see **Figure 1**
e = determined from loading docks + HVAC noise + parking lots
f = calculated

See **Appendix A** for additional information on decibel mathematics.

NOISE IMPACT ASSESSMENT ANALYSIS

We evaluated the following noise sources from the proposed project on the surrounding environment:

- Potential rooftop mechanical equipment noise
- Short-term construction noise and vibration
- Project-related traffic increases

We have drawn the following conclusions from the analysis:

The following summarizes the portion of the CEQA checklist pertaining to noise.

Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project exceeding standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

A: Permanent Increase in Noise Levels due to Project-Generated Noise

It is anticipated that the potential office spaces located on northern facades of the six buildings will be mechanically ventilated. Based on previous projects of similar design, we have assumed the use of up to four typical 5-ton package rooftop units located above each office (a total of 56 units). No outdoor mechanical equipment has been specified at this time. Specific equipment will be confirmed during the design phase.

Preliminary sound power level data provided from a similarly sized project with similar 5-ton outdoor package fan units indicates that combined noise from these units sums to approximately DNL 30 dB at the nearest property lines, assuming the units operate continuously for 24-hour operation. The rooftop parapet is assumed to provide acoustical shielding to nearby neighbors because they would break line-of-sight to the nearest receivers.

Depending on the final equipment placement, as well as any specific parapets, barriers, and shielding provided by buildings (which would reduce noise levels at the property lines), noise levels may vary. We do not expect the noise contribution to be significant in these aspects.

B: Predicted Permanent Increase in Noise Levels due Project Traffic Volumes

It has been communicated by the team that the projected truck trips per day will be approximately as shown below in Table 5.

Table 5: SMP-39 Truck Trips

Hour	Percent	ITE Trips
7 – 9 AM	10.8%	78
9 AM – 4 PM	61.0%	439
4 – 6 PM	10.8%	78
6 – 10 PM	3.9%	28
10 PM – 7 AM	13.4%	96
Total	100 %	719

Overall, the project would result in a net increase in daily trips by 719, amounting to an overall traffic noise DNL increase of <1 dB. Therefore, this would not result in a significant increase in noise levels at existing adjacent properties.

C: Temporary Increase in Noise Levels due to Construction

Construction activities will likely include the use of heavy equipment for grading and other activities, through completion of buildings and landscaping. Heavy trucks would travel to, from, and within the site hauling soil, equipment, and building materials. Smaller equipment, such as jackhammers, pneumatic tools, and saws could also be used throughout the demolition and construction phases in various areas. The noise and vibration associated with these activities would be generated within the entire project area.

Based on our experience with similar projects' construction methods and phasing, our preliminary understanding and assumptions of expected equipment is shown in Table 6. Reference levels for construction equipment are listed in Table 7, both at the reference distance of 50-feet and at 2,640-feet, which is the distance from eastern edge of the SMP 39 property to the residences across Isabel Avenue.

Table 6: List of Typical Construction Equipment and Phasing

Phase	Equipment
Demolition	Concrete/Industrial Saws, Excavators, Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Site Preparation	Graders, Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Grading/Excavation	Excavators, Drill Rig for Shoring Beams (Caisson Drilling), Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Trenching	Tractor/Loader/Backhoe, Excavators
Building Exterior	Cranes, Forklifts, Generator Sets, Tractors/Loaders/Backhoes, Welders
Building Interior/ Architectural Coating	Air Compressors, Aerial Lift
Paving/Landscaping/ Site Concrete	Cement and Mortar Mixers, Paving Equipment, Rollers, Tractors/Loaders/Backhoes

Table 7: Construction Equipment Reference Noise Levels[12]

Typical Equipment	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 50 feet)	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 2,640 feet)
Aerial Lift	83	49
Air Compressors	81	47
Cement and Mortar Mixers	85	51
Concrete/Industrial Saws	76	42
Cranes	83	49
Drill Rig for Shoring Beams (Caisson Drilling)	85	51
Excavators	85	51
Forklifts	83	49
Generator Sets	81	47
Graders	85	51
Paving Equipment	89	55
Rollers	74	40
Rubber-Tired Dozers	85	51
Tractors/Loaders/Backhoes	84	50
Welders	73	39

Actual construction noise levels will vary based on distance to each piece of equipment or work area from the receiver and shielding from adjacent buildings and construction elements. It should be noted that construction activities are prohibited during the specific time period outlined in Section 9.36.080 of the City's Municipal Code, and our calculations do not take shielding from adjacent buildings into consideration. Section 9.36.080 is as follows:

12 Equipment noise levels at 50-feet are from Section 9, Federal Highway Administration Highway Traffic Noise Construction Noise Handbook (August 2006) and Table 12-2, Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

Section 9.36.080 Hammers, pile drivers, pneumatic tools and similar equipment

The operation between the hours of 6:00 p.m. Saturday to 7:00 a.m. Monday; 8:00 p.m. to 7:00 a.m. on Monday, Tuesday, Wednesday and Thursdays; 8:00 p.m. Friday to 9:00 a.m. on Saturday or at all on city-observed holidays of any pile driver, pneumatic tools, derrick, electric hoist, sandblaster or other equipment used in construction, demolition or other repair work, the use of which is attended by loud or unusual noise, is prohibited. (Ord. 1672 § 2, 2002; Ord. 1128 § 2, 1983; 1960 code § 13B.3(f))

Construction Equipment Schedule

We received the following equipment schedule that CalEEMod utilized for their model for air quality emissions. **Table 8** below summarizes the equipment and associated sound levels at the nearest residential property (approximately 2,640 feet away).

Table 8: Construction Equipment Schedule

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Resulting DNL	Resulting Lmax
Grading	Excavators	2	8	66	54
Grading	Graders	1	8	66	51
Grading	Rubber Tired Dozers	1	8	66	51
Grading	Scrapers	2	8	66	54
Grading	Tractors/Loaders/Backhoes	2	8	66	53
Total Grading Phase	**All Equipment Running Simultaneously**			**67**	**60**
Paving	Pavers	2	8	67	58
Paving	Paving Equipment	2	8	67	58
Paving	Rollers	2	8	66	43
Total Paving Phase	**All Equipment Running Simultaneously**			**67**	**61**
Building Construction	Cranes	1	7	66	49
Building Construction	Forklift	3	8	66	54
Building Construction	Generator Sets	1	8	66	47
Building Construction	Tractors/Loaders/Backhoes	3	7	66	56
Building Construction	Welders	1	8	66	39
Total Building Construction	**All Equipment Running Simultaneously**			**67**	**59**
Architectural Coating	Air Compressors	1	8	66	47

It should be noted that the DNL was calculated using daytime construction noise levels for daytime hours for the listed hours of operation and measured nighttime hours from existing traffic. Despite restrictions of nighttime construction activities, from the noise levels shown above in Table 8, it could be possible to exceed the General Plan Objectives as follows:

Objective N-1.5 P3

- As shown above in Table 8, with all the phases running construction equipment as intended, the resulting Lmax would range between 59 and 61 dBA. Since construction is not permitted during nighttime hours, the Lmax criterion of 70 dBA would be met and not be considered a significant increase.

Due to these results, it will not be necessary to incorporate any mitigation measures for construction noise.

Would the project result in generation of excessive ground-borne vibration or ground-borne noise levels?

A: Permanent Increase in Vibration Levels due to Project-Generated Vibration

The planned use for the site, as warehouse buildings, is not expected to generate significant amounts of ground-borne noise or vibration.

B: Temporary Increase in Vibration Levels due to Construction

The nearest and most sensitive adjacent receivers include residences to the east approximately 500 feet from the closest area of construction on the project site. Industrial-zoned parcels to the north are assumed to be less sensitive.

Project construction may include activities such as the use of concrete saws, excavation and grading, and the use of rolling stock equipment (tracked vehicles, compactors, etc.). Typical construction vibration levels at 50-feet are listed in Table 9, below. Most of the construction will occur set back from the property line. As indicated in the criteria section above, the risk of damage to nearby structures may begin to occur at a limit of 1.0 in/sec PPV for transient vibration events and 0.50 PPV for continuous events.

Table 9: Example Construction Vibration Levels[13]

Equipment	PPV at 50 ft. (in/sec)[14]
Vibratory Roller	0.049
Hydraulic Breaker	0.03 to 0.08
Large Bulldozer	0.03
Loaded Trucks	0.03
Excavator	0.03
Caisson/pier drilling	0.03
Jackhammer	0.01
Small Bulldozer	0.001
Crane, Forklift, Bobcat	No significant vibration

Based on the vibration levels shown in Table 8, construction equipment is not expected to cause structural damage to adjacent properties because project construction is not expected to exceed the thresholds for new residential buildings or commercial/industrial structures as shown above in Table 3. Ground-borne noise would also not be expected to be significant at these vibration levels.

FUTURE LOADING DOCK AND INTRA-PROJECT TRAFFIC NOISE ESTIMATES

Future Loading Dock Calculation Methodology

Operational noise from the proposed facility is expected to consist primarily of tractor-trailers accessing loading dock areas. To estimate truck noise at the proposed facility, we referenced recently measured noise levels at a distribution facility elsewhere in California which involved semi-trucks similar in size to those that are expected to access the proposed project's facility.

Calculations for resulting noise levels due to on-site truck and car trip generation durations and activities were based on the measurements at this local distribution facility with ancillary information provided to us for that reference project in 2018.

Based on the assumptions described below, estimated noise levels were then compared to applicable criteria to determine if noise from the proposed facility would exceed the City's noise goals (described above) at the nearest receivers.

Traffic volumes for the proposed project were referenced from the provided Traffic Impact Analysis document (dated 4 April 2023) by TJKM, which describes the total daily truck trips and the partial

13 Table 12-2, Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

14 Using a value of n = 1.5 per FTA recommendation, where n is the attenuation rate through the ground

distribution over the peak AM and PM hours and the relative expected proportion of project-generated trips using Jack London Boulevard and Isabel Avenue.

Intra-Project Traffic Methodology

Intra-project traffic noise will consist of traffic noise associated with future warehouse employee vehicles within the designated parking lots. To estimate vehicle noise at the employee parking lots, we also reference the Traffic Impact Analysis document for the expected traffic volume of warehouse employees.

Noise Source Analysis and Assumptions

Future Loading Docks

Our analysis estimated future noise from the facility based on the following assumptions discussed with the client via email, and per the overall site plan:

1. Trucks will enter and exit the site from three driveways off West Jackson Boulevard, from the north.
2. Non-truck noises associated with loading/unloading activity (i.e., forklifts, rolling doors, carts, pallet crushing, items dropping), are assumed to be located near the dock doors and are included in our analysis.
3. An average truck trip (not including unloading/loading) is estimated to last for a cumulative period of about 2 minutes and be at least 930 feet from the nearest commercial property line.
4. Trucks occupy the loading dock in their loading area that is nearest to noise-sensitive receiver (Commercial buildings east of Discovery Drive, to the east of the building).
5. Total number of loading docks: 104
6. Number and distribution of truck trips is based on the traffic impact analysis, with approximately 719 total truck trips per 24-hour period (continuous 24/7 operation) distributed as follows:
    - AM Peak is 7-9 AM- 10.8%
    - 9-4 PM -61%
    - PM Peak is 4 PM - 6 PM -10.8%
    - 6 PM - 10 PM 3.9%
    - 10 PM -7 AM 13.4%
7. The proposed warehouse buildings have south-facing loading docks which are recessed approximately 60 feet from the easternmost building's façade, providing substantial shielding for truck operation noise. This feature is expected to obstruct the direct line of sight of the project's loading docks from the commercial neighbors to the east, especially in buildings closer to Discovery Drive.
8. Having measured operations at a local representative loading dock site, a typical truck "trip" consists of the following events (estimated sound levels based on measurements at similar facilities):

a. Truck passby (arrival, departure): 69 dBA at 30 feet

b. Truck airbrakes: 72 dBA at 25 feet

c. Truck backup alarm: 79 dBA at 30 feet

d. Brief idle before engine shutoff: 70 dBA at 25 feet

e. Truck engine ignition and airbrakes: 71 dBA at 25 feet

f. Truck accelerating from stop: 74 dBA at 25 feet

g. Truck trip reference heights[15] (above grade)

i. Passby, brief idle, acceleration, and ignition: 8 feet

ii. Back-up beeper and airbrake: 2.5 feet

Intra-Project Traffic Noise

Our analysis estimated future noise from the facility parking lots is based on the following assumptions:

1. Employees will enter and exit the site from the three driveways from the north (via Jack London Boulevard).
2. Vehicle trips will be split between Jack London Boulevard and Isabel Avenue per the TJKM report's traffic projections. Our traffic analysis calculations tell us the following:

- 80% of project generated trips will be along Jack London Boulevard
- 20% of project generated trips will be along Isabel Avenue
- There will be an average noise level increase of approximately 3dB on both roadways due to traffic increases. This increase is not considered to be significant.

3. Once on site, vehicles will travel an average of 15 miles per hour or less.
4. Vehicles will be spread out evenly amongst the parking areas.
5. An average vehicle trip is estimated to last for a cumulative period of about 2 minutes and be at least 900 feet from the nearest commercial property line.
6. Similar percentages were assumed for intra-project vehicle trips in the project parking lots as were truck trips, as shown in the distribution below.

- AM Peak is 7-9 AM- 10.8%
- 9-4 PM -61%
- PM Peak is 4 PM - 6 PM -10.8%
- 6 PM - 10 PM 3.9%
- 10 PM -7 AM 13.4%

[15] Truck source heights excerpted from Caltrans Technical Noise Supplement document (TeNS) document dated October 1998.

Estimated Future Noise Levels

Loading Dock Future Noise Levels (CNEL/DNL)

We estimated noise levels at local receptors from the sources described in the previous section. To account for future increases in local traffic noise levels, we added 1 dB DNL to the measured levels[16] (see Table 4 above).

Table 10 below summarizes the estimated DNL levels at the closest property plane to the east of the building, under the assumption that the facility would receive its trucking activities 24 hours per day.

Table 10: Calculated Future Facility Noise at Noise-Sensitive Land Uses: CNEL/DNL, dBA

Scenario	Nearby Receiving Locations	Existing Noise at Receiver	Loading Docks at Receiver	Intra-Project Traffic Noise Levels at Receiver	Combined Existing plus Project	Change (dB)
24-hour Operations	East Property Line (Residences across Isabel Avenue)	67	61	32	68	+1 dB

The data shows that loading dock-generated noise is not expected to impact adjacent receivers to the north and the residences to the east. The calculated increase in DNL at the nearest property line with the project and future traffic noise levels (near term 2025) will be approximately 1 dB. A change of 3 dB or less is not expected to be noticeable and is not considered significant.

Future L_{50} Noise Levels

The following assumptions were made about the 24-hour operation of the project in our estimated L_{50} calculations:

- The volume of expected truck trips is consistent with the truck trip distribution established in item 6 of the Noise Source Analysis and Assumptions section (i.e., a maximum of 10 truck per hour at nighttime, or 13.4% of trucks between 10:00 pm and 7:00 am).
- The 6- and 10-foot berms will be incorporated into the project.
- Backup alarms are expected to be at a height of approximately 2.5 feet.
- Trucks do not move great distances when their backup alarm is engaged.

[16] The California Department of Transportation assumes a traffic volume increase of three-percent per year, which corresponds to a 1 dB increase in DNL over a ten-year period.

Table 11 summarizes the estimated daytime and nighttime L_{50} for the proposed project. Since backup alarms for nighttime are predicted to occur less than 15 minutes per hour, the criterion can increase by 5 dBA per Policy P2. However, since back up alarms would be more than 15 minutes per hour during the daytime, no additional increases are accounted for in our analysis.

Table 11: Calculated 24-Hour Future Facility L_{50} Value: L_{50}, dBA

Time of Day	Estimated L_{50} Value	Criterion L_{50} Value
Daytime (7am-10pm)	40 dBA	55 dBA
Nighttime (10pm-7am)	35 dBA	50 dBA

Our calculations of overall operational L_{50} noise levels do not exceed the allowable values stated by the City (i.e., Policy P1, Objective N-1.5), it is our understanding that other current similar projects in the vicinity have caused local neighbor complaints due to trucks' back-up alarms at those locations in the past.

Back-up alarms were assumed to be 79 dB at a reference distance of 30 feet. The distance attenuation between the loading dock to the façade of the nearest residence provides a 31 dB reduction. Although backup alarms would be audible from the residences, the L_{50} threshold of 50 dBA will not be exceeded due to the limited number of trips during this timeframe (estimated at 40 trips in 9-hour time frame).

Calculations assumed the source height of these backup alarms to be approximately 2.5 feet from grade. The current buildings would adequately obstruct the direct line-of-sight of these backup alarms to the residential receivers. The dimensions of the proposed berms are calculated to reduce intermittent noise levels (such as those produced by backup alarms) by up to 6 dB at the closest residents.

Quieter backup alarms (aka "squawkers"), which are becoming more prevalent in delivery vehicles for various large e-commerce websites, and other vendors, may be used by trucking operators visiting this site in the future, therefore beeper noise has the potential to be reduced. A best practice for consideration would be to implement these alternative devices in other truck populations in the future.

CONCLUSIONS AND COMMENTS

1. Future loading dock-generated noise (due to on-site trucks and vehicles) over a 24-hour operation period is not expected to impact receivers to the east. The calculated increase in CNEL/DNL at the nearest noise-sensitive residential receivers with the project and future traffic noise levels will be <1 dB. A change of 2 dB or less is not considered significant nor is it expected to be noticeable to residents east of the project site.
2. Temporary construction noise will be consistent with the City's Noise Ordinance and will not exceed the criteria established by General Plan Noise Objectives N-1.1 and N-1.5.

3. Considering the 2,395-foot distance between the nearest loading dock and the closest residents, and the trucks being a stationary source rather than a moving vehicle once the leaving the loading dock area of the project site, the city's L_{50} criterion is not applicable once a truck begins moving closer to the residential area. Given the minority of expected project truck trips conducted in the nighttime hours (10 trips per hour on average from 10 PM to 7 AM), noise from stationary trucks at the nearest loading dock are expected to comply with the City's L_{50} nighttime requirement assuming backup alarms are not continuously operating for more than 30 minutes per hour.

* * *

APPENDIX A: FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL NOISE

This section provides background information to aid in understanding the technical aspects of this report.

Three dimensions of environmental noise are important in determining subjective response. These are:

- The intensity or level of the sound
- The frequency spectrum of the sound
- The time-varying character of the sound

Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dBA), with 0 dBA corresponding roughly to the threshold of hearing.

The "frequency" of a sound refers to the number of complete pressure fluctuations per second in the sound. The unit of measurement is the cycle per second (cps) or hertz (Hz). Most of the sounds, which we hear in the environment, do not consist of a single frequency, but of a broad band of frequencies, differing in level. The name of the frequency and level content of a sound is its sound spectrum. A sound spectrum for engineering purposes is typically described in terms of octave bands, which separate the audible frequency range (for human beings, from about 20 to 20,000 Hz) into ten segments.

Many rating methods have been devised to permit comparisons of sounds having quite different spectra. Surprisingly, the simplest method correlates with human response practically as well as the more complex methods. This method consists of evaluating all of the frequencies of a sound in accordance with a weighting that progressively de-emphasizes the importance of frequency components below 1000 Hz and above 5000 Hz. This frequency weighting reflects the fact that human hearing is less sensitive at low frequencies and at extreme high frequencies relative to the mid-range.

The weighting system described above is called "A"-weighting, and the level so measured is called the "A-weighted sound level" or "A-weighted noise level." The unit of A-weighted sound level is sometimes abbreviated "dBA." In practice, the sound level is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting characteristic. All U.S. and international standard sound level meters include such a filter. Typical sound levels found in the environment and in industry are shown in Figure A-1.

Although a single sound level value may adequately describe environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise is a conglomeration of distant noise sources, which results in a relatively steady background noise having no identifiable source. These distant sources may include traffic, wind in trees, industrial activities, etc. and are relatively constant from moment to moment. As natural forces change or as human activity follows its daily cycle, the sound level may vary slowly from hour to hour. Superimposed on this slowly varying background is a succession of identifiable noisy events of brief duration. These may include nearby activities such as single vehicle pass-bys, aircraft flyovers, etc. which cause the environmental noise level to vary from instant to instant.

To describe the time-varying character of environmental noise, statistical noise descriptors were developed. "L10" is the A-weighted sound level equaled or exceeded during 10 percent of a stated time period. The L10 is considered a good measure of the maximum sound levels caused by discrete noise events. "L50" is the A-weighted sound level that equals or exceeded 50 percent of a stated time period; it represents the median sound level. The "L90" is the A-weighted sound level equaled or exceeded during 90 percent of a stated time period and is used to describe the background noise.

As it is often cumbersome to quantify the noise environment with a set of statistical descriptors, a single number called the average sound level or "L_{eq}" is now widely used. The term "L_{eq}" originated from the concept of a so-called equivalent sound level which contains the same acoustical energy as a varying sound level during the same time period. In simple but accurate technical language, the L_{eq} is the average A-weighted sound level in a stated time period. The L_{eq} is particularly useful in describing the subjective change in an environment where the source of noise remains the same but there is change in the level of activity. Widening roads and/or increasing traffic are examples of this kind of situation.

In determining the daily measure of environmental noise, it is important to account for the different response of people to daytime and nighttime noise. During the nighttime, exterior background noise levels are generally lower than in the daytime; however, most household noise also decreases at night, thus exterior noise intrusions again become noticeable. Further, most people trying to sleep at night are more sensitive to noise. To account for human sensitivity to nighttime noise levels, a special descriptor was developed. The descriptor is called the L_{dn} (Day/Night Average Sound Level), which represents the 24-hour average sound level with a penalty for noise occurring at night. The L_{dn} computation divides the 24-hour day into two periods: daytime (7:00 am to 10:00 pm); and nighttime (10:00 pm to 7:00 am). The nighttime sound levels are assigned a 10 dBA penalty prior to averaging with daytime hourly sound levels.

For highway noise environments, the average noise level during the peak hour traffic volume is approximately equal to the L_{dn}.

The effects of noise on people can be listed in three general categories:

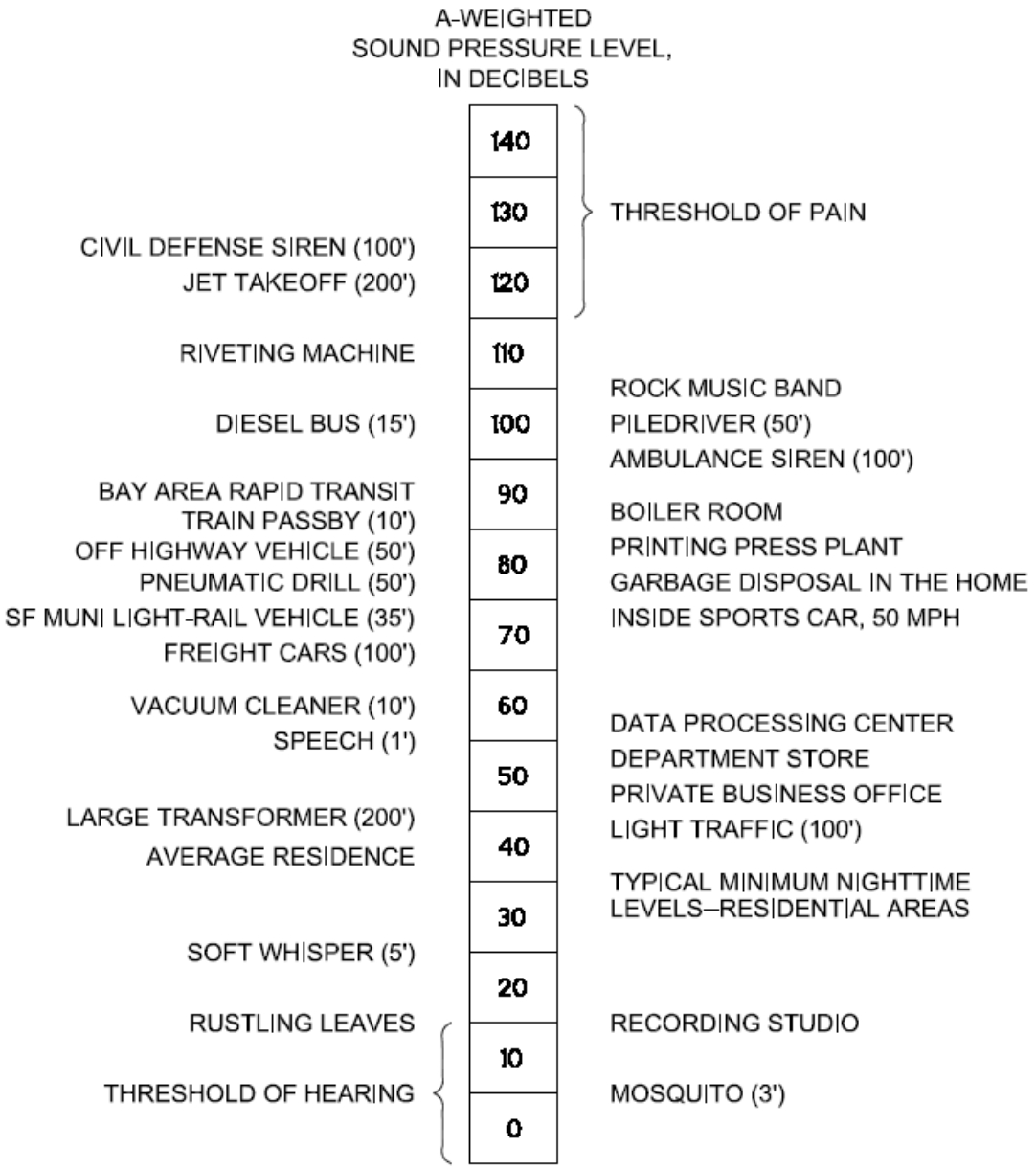
- Subjective effects of annoyance, nuisance, dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as startle, hearing loss

The sound levels associated with environmental noise usually produce effects only in the first two categories. Unfortunately, there has never been a completely predictable measure for the subjective effects of noise nor of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and habituation to noise over time.

Thus, an important factor in assessing a person's subjective reaction is to compare the new noise environment to the existing noise environment. In general, the more a new noise exceeds the existing, the less acceptable the new noise will be judged.

Regarding increases in noise level, knowledge of the following relationships will be helpful in understanding the quantitative sections of this report:

Except in carefully controlled laboratory experiments, a change of only 1 dBA in sound level cannot be perceived. Outside of the laboratory, a 3 dBA change is considered a just-noticeable difference. A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. A 10 dBA change is subjectively heard as approximately a doubling in loudness and would almost certainly cause an adverse community response.



(100') = DISTANCE IN FEET BETWEEN SOURCE AND LISTENER

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TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY

FIGURE A1

1107 C 11.25.03

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LIVERMORE SMP-39 SITE MEASUREMENT LOCATION AND MEASURED NOISE LEVEL

FIGURE 1

Salter #	MEV/ECS
23-0142	05.02.23

Attachment 3

SMP 40 Revised Environmental Noise Study

Oaks Business Park SMP-40

Livermore, CA

UPDATE TO ENVIRONMENTAL NOISE STUDY

4 March 2024

Prepared for: Michael Johnson
Overton Moore Properties
19700 S Vermont Avenue Suite #101
Torrance, CA 90502
MJohnson@omprop.com

Timur Tecimer
Overton Moore Properties
19700 S Vermont Avenue Suite #101
Torrance, CA 90502
ttecimer@omprop.com

Prepared by: **Salter**
Diego Hernandez – Associate dhernandez@salter-inc.com
Ethan Salter – Vice President esalter@salter-inc.com

Salter Project 21-0471

INTRODUCTION

This report summarizes our study of environmental noise of the proposed project (Livermore Oaks Business Park SMP-40) on nearby land uses. The project site is west of Isabel Avenue (State Highway 84), north of Stanley Boulevard, and south of Discovery Drive in Livermore, California. The purpose of the study was to determine whether estimated activity noise and construction noise from the proposed facility will meet the relevant requirements of the City General Plan Noise Element and Noise Ordinance at adjacent land uses.

EXECUTIVE SUMMARY

- Noise from the project's loading docks, future intra-project vehicle traffic, and likely HVAC equipment will increase CNEL[1] or DNL[2] noise levels at noise-sensitive receiver locations at most by 3 dB. An increase of 3 dB or less DNL is not expected to be noticeable and is not considered significant.
- Noise from project-created traffic would not result in a significant increase in noise levels on Isabel Avenue at adjacent properties.
- Temporary construction noise will exceed the City's Noise Ordinance and will need mitigation measures not to exceed the criteria established by General Plan Noise Objectives N-1.1 and N-1.5.

REPORT ORGANIZATION

This report is organized into the following sections:

- Project Site
- Acoustical Criteria
- Existing Noise Environment
- Noise Impact Assessment
  - Construction Noise
  - Loading Dock and Intra-Project Traffic Noise (Parking Lot)
  - Tenant HVAC Equipment Noise

[1] Community Noise Equivalent Level (CNEL) – A descriptor for the 24-hour A-weighted average noise level. The CNEL concept accounts for the increased acoustical sensitivity of people to noise during the evening and nighttime hours. Sound levels during the hours from 7 pm to 10 pm are penalized 5 dB; sound levels during the hours from 10 pm to 7 am are penalized 10 dB. A 10-dB increase in sound level is perceived by people to be a doubling of loudness.

[2] Day-Night Average Sound Level (DNL) – A descriptor established by the U.S. Environmental Protection Agency to describe the average day-night level with a penalty applied to noise occurring during the nighttime hours (10 pm - 7 am) to account for the increased sensitivity of people during sleeping hours. Also noted as Ldn. The difference between CNEL and DNL is often less than 1 dB.

PROJECT SITE

The proposed project will have a total area of approximately 40 acres, west of Isabel Avenue (State Highway 84) and between Stanley Boulevard and Discovery Drive in the City of Livermore. Warehouse Building 1 will be about 470,350 square feet with 68 loading docks, while Building 2 will be 288,750 square feet with 62 loading docks. The site is adjacent to existing industrially zoned warehouse facilities with loading docks to the north. Noise-sensitive residential receivers are located across Isabel Avenue to the east about 1,785-feet away from Building 1, and 600-feet away the northeast corner of the SMP-40 site. Two berms have been incorporated on the project site: a 6-foot by 125-foot landscape berm on the Northeast corner of the project property line, and a 10-foot by 60-foot screening wall east of Building 2's southern loading docks.

ACOUSTICAL CRITERIA

The following are project criteria and/or guidelines per the City of Livermore and State of California.

City of Livermore 2003-2025 General Plan Noise Element

Policy P4, Objective N-1.1

The Noise Element of the Livermore General Plan (Chapter 9, Policy P4 of Objective N-1.1) contains land use compatibility guidelines for environmental noise in the community. Table 1, below, summarizes these guidelines for residential and industrial land uses[3] in terms of CNEL or DNL. The definitions of each land use category follow below the table.

Table 1: Summary of Table 9-7 – Land Use Compatibility Guidelines for Community Noise CNEL or DNL, dB

Land Use Category	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential Low-Density[4], Single-family, Duplex, Mobile Homes	≤60	55-70	70-75	>75
Industrial, Manufacturing, Utilities, Agricultural	≤75	70-80	>75	--

[3] Table 9-7 of the Noise Element, page 9-27.

[4] Per General Plan Noise Ordinance Objective N-1.4, Policy P4, the criterion for single-family residential back yards is 60 dB CNEL/DNL.

Normally Acceptable: *If the noise level is within the "normally acceptable" level, noise exposure would be acceptable for the intended land use. Development may occur without requiring an evaluation of the noise environment unless the use could generate noise impacts on adjacent uses.*

Conditionally Acceptable: *If the noise level is within the "conditionally acceptable" level, noise exposure would be conditionally acceptable; a specified land use may be permitted only after detailed analysis of the noise environment and the project characteristics to determine whether noise insulation or protection features are required. Such noise insulation features may include measures to protect noise-sensitive outdoor activity areas (e.g., at residences, schools, or parks) or may include building sound insulation treatments such as sound-rated windows to protect interior spaces in sensitive receptors.*

Normally Unacceptable: *If the noise level is within the "normally unacceptable" level, analysis and mitigation are required. Development should generally not be undertaken unless adequate noise mitigation options have been analyzed and appropriate mitigations incorporated into the project to reduce the exposure of people to unacceptable noise levels.*

Clearly Unacceptable: *New construction should not be undertaken unless all feasible noise mitigation options have been analyzed and appropriate mitigation incorporated into the project to adequately reduce exposure of people to unacceptable noise levels.*

Noise Element Objective N-1.5

Objective N-1.5 seeks to reduce the level of noise generated by "stationary mechanical and other noise-generating equipment". Policy P1 states that "the City shall require that industrial and commercial uses be designed and operated to avoid the generation of noise effects on surrounding land uses from exceeding the following noise levels for exterior environments, operating longer than half an hour per hour:

- 55 dBA[5] L50[6] (7:00am to 10:00pm)
- 45 dBA L50 (10:00pm to 7:00am)

Policy P2 allows short-term events to have levels louder than those cited above. For events that occur less than 15 minutes per hour, levels can be increased by 5 dBA; events no more than 5 minutes per hour are allowed an additional 10 dBA, and those taking place one minute or less per hour are allowed an additional 15 dBA.

[5] A-Weighted Sound Level – The A-weighted sound pressure level, expressed in decibels (dB). Sometimes the unit of sound level is written as dB(A). A weighting is a standard weighting that accounts for the sensitivity of human hearing to the range of audible frequencies. People perceive a 10 dB increase in sound level to be twice as loud.

[6] L50 – The noise level exceeded 50% of the time. For a discussion of environmental acoustics, please refer to Appendix A.

Policy P4 allows an exemption from Policy P1 for motor vehicles on public streets between the hours of 7:00am and 8:00pm. We understand that Policies P1, P2, and P4 could apply to the noise from backup alarms (aka "beepers" or "squawkers").

Objective N-1.5 specifically describes "stationary source noises", so when referring to L_{50} noise levels we analyzed the noise of trucks that are expected to sit in the loading dock area, estimated to be at least 1,025 feet from the nearest residence.

Policy P3 establishes instantaneous maximum noise levels allowed (Lmax[7]) of 70 dBA during the day and 60 dBA during the night.

California Department of Transportation (CalTrans) Construction Vibration Criteria

The California Department of Transportation[8] (DOT) provides vibration guidelines for two scenarios: human perception and construction damage. These tables are included below as guidelines for potential project vibration levels. "Transient" vibrations are classified as impulsive events that are short in duration (e.g., debris falling, blasting). "Continuous" vibrations are more sustained vibration events over longer periods of time (e.g., jackhammering, drilling). Table 2 describes the human response to different levels of ground-borne vibration for transient and continuous events.

Table 2: Guideline Vibration Annoyance Potential Threshold Criteria[9]

Human Response	Maximum PPV[10] (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.00	0.40

7 L_{max} (Maximum Sound Level) – The maximum sound level for a specified measurement period of time as defined in ASTM E1686.

8 Transportation and Construction Vibration Guidance Manual September 2013 (DOT Document).

9 This is Table 20 from the DOT document.

10 (PPV): Peak Particle Velocity.

Table 3 provides a guideline for vibration criteria to assess the damage potential from ground vibration induced by construction equipment. Thresholds for continuous vibrations are lower than those for transient vibrations and are therefore considered more "conservative". These are standard significance thresholds used in the industry to determine impacts of ground borne vibrations on structures.

Table 3: Guideline Vibration Damage Potential Threshold Criteria[11]

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

The immediate adjacent properties are all modern industrial or commercial buildings. Across Isabel Avenue/Highway 84 to the east are existing single-family residences. Based on Table 3, we have applied the more stringent residential criteria of 1.0 PPV for transient events and 0.50 PPV for continuous events.

State of California CEQA Guidelines and Impact Criteria

The California Environmental Quality Act (CEQA) contains guidelines that evaluate the significance of noise attributable to a proposed project. This would include (but is not limited to) added traffic noise, mechanical equipment noise, and construction noise. CEQA asks the following applicable questions. Would the project result in:

1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
2. Generation of excessive ground borne vibration or ground borne noise levels?
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public-use airport, would the project expose people residing or working in the project area to excessive noise levels?

11 This is Table 19 of the DOT document.

CEQA does not define the noise level increase that is considered "substantial". Typically, the local general plan would establish limits with respect to allowable noise and vibration increases. However, the City of Livermore General Plan does not contain numerical standards of significance for noise increases. For the items above, noise level increases of 3 dBA or less are generally considered less-than-significant. Substantial adverse community response would be expected only for increases of 5 dBA or more.

EXISTING NOISE ENVIRONMENT

Project Site Description

To quantify the existing site noise environment, two monitors continuously measured noise levels along the project property lines to the north and east between 2 and 4 November 2021. Table 4 summarizes measured data and Figure 1, attached, shows the approximate measurement locations. Locations were selected based not only on project setbacks but also on what nearby locations were accessible via public rights-of-way.

Table 4: Measured Environmental Noise Levels

Site	Location	Measured DNL (dBA)
LT-1	Business Park, approximately 10-feet above grade	65
LT-2	Arroyo Bike Trail, approximately 10-feet above grade	67

Site Noise Context

Noise measurements at the project site (see Figure 1), collected data from vehicle pass-bys on nearby roads. Measured on-site noise levels were DNL 65 dB and 67 dB at the project site (see Figure 1). LT-1 was placed near the nearest existing warehouse across from residences, and LT-2 was placed on the closest accessible utility pole across from residences. Adjustments were made, as appropriate, to estimate the change in noise levels from the long-term monitor location to the locations of the nearest residences east of Isabel Avenue.

We have combined cumulative existing and future noise sources that would result from the project's completion. Future project sources include the proposed loading dock noise, rooftop HVAC equipment, parking areas, and estimated traffic contribution, while the existing noise sources are the existing traffic. Adding expected noise contribution to the existing noise environment logarithmically would result in a noise level of approximately DNL 67 dB from all contributing noise sources upon the project's completion.

DNL 29[a] dB [Future HVAC] + DNL 29[b] dB [employee lot] + DNL 52 [c] dB [trucks] = DNL 52 [d] dB [future noise level at receivers]

a = cumulative building rooftop HVAC noise
b = employee parking lot noise
c = truck noise at loading docks

d = cumulative future project sources

DNL 67[e] dB [existing traffic] + DNL 52[e] dB [combined future sources] = DNL 67[f] dB [future noise level at receivers]

e = measured at project site, see **Figure 1**
e = determined from loading docks + HVAC noise + parking lots
f = calculated

See Appendix A for additional information on decibel mathematics.

NOISE IMPACT ASSESSMENT ANALYSIS

We evaluated the following noise sources from the proposed project on the surrounding environment:

- Potential rooftop mechanical equipment noise
- Short-term construction noise and vibration
- Project-related traffic increases

We have drawn the following conclusions from the analysis:

The following summarizes the portion of the CEQA checklist pertaining to noise.

Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

A: Permanent Increase in Noise Levels due to Project-Generated Noise

The owner anticipates that tenant office spaces located on the corners of each building will be mechanically ventilated with typical 5-ton package units located above the offices in each corner of each building. No other outdoor mechanical equipment has been specified at this time. Specific equipment will be confirmed during the design phase.

Preliminary sound power level data has been provided for these 5-ton outdoor package fan units indicating that combined noise from these units sums to approximately DNL 29 dB at the nearest property lines. This assumes 24-hour operation of this equipment (in line with the operation hours of the building). The rooftop parapet is assumed to provide acoustical shielding to nearby neighbors because they would break line-of-sight to the nearest receivers.

Depending on the final equipment placement, as well as any specific parapets, barriers, and shielding provided by buildings (which would reduce noise levels at the property lines), noise levels may vary. We do not expect the noise contribution to be significant in these aspects.

B: Predicted Permanent Increase in Noise Levels due Project Traffic Volumes

It has been communicated by the team that the projected truck trips per day will be approximately as shown below in Table 5.

Table 5: SMP-40 Truck Trips

Hour	Percent	ITE Trips
7 – 9 AM	9.4%	20
9 AM – 4 PM	42.7%	91
4 – 6 PM	12.7%	27
6 – 10 PM	16.4%	35
10 PM – 7 AM	18.8%	40
Total	100 %	213

Overall, the project would result in a net increase in daily trips by 213, amounting to an overall traffic noise DNL increase of approximately 2 dB. Therefore, this would not result in a significant increase in noise levels at existing adjacent properties.

C: Temporary Increase in Noise Levels due to Construction

Construction activities will likely include the use of heavy equipment for grading and other activities, through completion of buildings and landscaping. Heavy trucks would travel to, from, and within the site hauling soil, equipment, and building materials. Smaller equipment, such as jackhammers, pneumatic tools, and saws could also be used throughout the demolition and construction phases in various areas. The noise and vibration associated with these activities would be generated within the entire project area.

Based on our experience with similar projects' construction methods and phasing, our preliminary understanding and assumptions of expected equipment is shown in Table 6. Reference levels for construction equipment are listed in Table 7, both at the reference distance of 50-feet and at 600-feet, which is the closest distance between the project and the residences across Isabel Avenue.

Table 6: List of Typical Construction Equipment and Phasing

Phase	Equipment
Demolition	Concrete/Industrial Saws, Excavators, Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Site Preparation	Graders, Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Grading/Excavation	Excavators, Drill Rig for Shoring Beams (Caisson Drilling), Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Trenching	Tractor/Loader/Backhoe, Excavators
Building Exterior	Cranes, Forklifts, Generator Sets, Tractors/Loaders/Backhoes, Welders
Building Interior/ Architectural Coating	Air Compressors, Aerial Lift
Paving/Landscaping/ Site Concrete	Cement and Mortar Mixers, Paving Equipment, Rollers, Tractors/Loaders/Backhoes

Table 7: Construction Equipment Reference Noise Levels[12]

Typical Equipment	Estimated Maximum Instantaneous L_{max}[13] Noise Level (dBA at 50 feet)	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 600 feet)
Aerial Lift	83	61
Air Compressors	81	59
Cement and Mortar Mixers	85	63
Concrete/Industrial Saws	76	54
Cranes	83	61
Drill Rig for Shoring Beams (Caisson Drilling)	85	63
Excavators	85	63
Forklifts	83	61
Generator Sets	81	59
Graders	85	63
Paving Equipment	89	67
Rollers	74	52
Rubber-Tired Dozers	85	63
Tractors/Loaders/Backhoes	84	62
Welders	73	51

Actual construction noise levels will vary based on distance to each piece of equipment or work area from the receiver and shielding from adjacent buildings and construction elements. It should be noted that construction activities are prohibited during the specific time period outlined in Section 9.36.080 of the City's Municipal Code. Section 9.36.080 is as follows:

12 Equipment noise levels at 50-feet are from Section 9, Federal Highway Administration Highway Traffic Noise Construction Noise Handbook (August 2006) and Table 12-2, Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

13 L_{max} (Maximum Sound Level) – The maximum sound level for a specified measurement period of time as defined in ASTM E1686.

Section 9.36.080 Hammers, pile drivers, pneumatic tools and similar equipment

The operation between the hours of 6:00 p.m. Saturday to 7:00 a.m. Monday; 8:00 p.m. to 7:00 a.m. on Monday, Tuesday, Wednesday and Thursdays; 8:00 p.m. Friday to 9:00 a.m. on Saturday or at all on city-observed holidays of any pile driver, pneumatic tools, derrick, electric hoist, sandblaster or other equipment used in construction, demolition or other repair work, the use of which is attended by loud or unusual noise, is prohibited. (Ord. 1672 § 2, 2002; Ord. 1128 § 2, 1983; 1960 code § 13B.3(f))

Construction Equipment Schedule

We received the following equipment schedule that CalEEMod utilized for their model for air quality emissions. Table 8 below summarizes the equipment and associated sound levels at the nearest residential property (approximately 600 feet away).

Table 8: Construction Equipment Schedule

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Resulting DNL	Resulting Lmax
Grading	Excavators	2	8	67	66
Grading	Graders	1	8	67	63
Grading	Rubber Tired Dozers	1	8	67	63
Grading	Scrapers	2	8	67	66
Grading	Tractors/Loaders/Backhoes	2	8	67	65
Total Grading Phase	**All Equipment Running Simultaneously**			**70**	**72**
Paving	Pavers	2	8	69	70
Paving	Paving Equipment	2	8	69	70
Paving	Rollers	2	8	66	55
Total Paving Phase	**All Equipment Running Simultaneously**			**70**	**73**
Building Construction	Cranes	1	7	67	61
Building Construction	Forklift	3	8	67	66
Building Construction	Generator Sets	1	8	67	59
Building Construction	Tractors/Loaders/Backhoes	3	7	68	67
Building Construction	Welders	1	8	66	51
Total Building Construction	**All Equipment Running Simultaneously**			**69**	**70**
Architectural Coating	Air Compressors	1	8	67	59

It should be noted that the DNL was calculated using daytime construction noise levels for daytime hours for the listed hours of operation and measured nighttime hours from existing traffic. Despite restrictions of nighttime construction activities, from the noise levels shown above in Table 8, it could be possible to exceed the General Plan Objectives as follows:

Objective N-1.5 P3

- As shown above in Table 8, with all the phases running construction equipment as intended, the resulting Lmax would range between 70 and 73 dBA. Since construction is not permitted during nighttime hours, only the daytime Lmax criterion of 70 dBA would be applicable and would not be met. Therefore, it will be necessary to implement the mitigation measures shown below.

Due to these possibilities, the following is a list of measures that are required to be adopted by the contractor to reduce the impact of construction noise on neighbors:

1. Consistent with the Livermore Municipal Code, construction will be limited to weekdays between the hours of 7:00 a.m. and 8:00 p.m. and Saturdays through Sunday between the hours of 9:00 a.m. and 6:00 p.m.
2. There are residences located approximately 600 feet from the project site. Thus, to help reduce the impact of noise construction, it will be necessary that a barrier be built prior to the planned permanent 10-foot tall berm on the east side of the project. If this is not feasible, we recommend building the planned permanent 10-foot tall berm before construction activities. This will be necessary to reduce construction noise impacts on the residences. The barrier/berm should be 10 feet tall. This would help reduce the construction noise impacts on the residences by approximately 10 dB.
3. The barrier can be field-built provided they meet the following criteria:
    a. Minimum surface density of 4 psf.

        Many constructions could meet the surface density requirement. For example, a stud wall with exterior-grade plywood sheathing and a stucco finish (or two layers of 5/8-inch thick plywood) would meet this requirement.

    b. The barrier should be free of cracks and drainage holes/slots along the bottom of the barrier be kept to a minimum. Where needed, they should be covered by 1 psf mass-loaded vinyl flaps (e.g., Kinetics KNM-100) so water can flow around the vinyl and still drain.

    c. Joints between sheathing layers be offset by 16 inches minimum.
4. Contractors shall utilize “quiet” models of air compressors and other stationary noise sources where technology exists.
5. Internal combustion engine-driven equipment shall be equipped with mufflers which are in good condition and appropriate for the equipment.

6. Stationary noise-generating equipment, such as air compressors and portable power generators, shall be located as far away as possible from adjacent property lines.
7. Staging areas and construction material areas shall be located as far away as feasible from adjacent residences.
8. All unnecessary idling of internal combustion engines should be prohibited.
9. The contractor should designate a "noise disturbance construction superintendent" who will be responsible for tracking and responding to any complaints about construction noise. The noise disturbance construction superintendent will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures are implemented to correct the problem. The telephone number for the noise disturbance construction superintendent will be posted at the construction site and included in any construction notices sent to neighbors.

Would the project result in generation of excessive ground-borne vibration or ground-borne noise levels?

A: Permanent Increase in Vibration Levels due to Project-Generated Vibration

The planned use for the site, as warehouse buildings, is not expected to generate significant amounts of ground-borne noise or vibration.

B: Temporary Increase in Vibration Levels due to Construction

The nearest and most sensitive adjacent receivers include residences to the east approximately 500 feet from the closest area of construction on the project site. Industrial-zoned parcels to the north are assumed to be less sensitive.

Project construction may include activities such as the use of concrete saws, excavation and grading, and the use of rolling stock equipment (tracked vehicles, compactors, etc.). Typical construction vibration levels at 50-feet are listed in Table 9, below. Most of the construction will occur set back from the property line. As indicated in the criteria section above, the risk of damage to nearby structures may begin to occur at a limit of 1.0 in/sec PPV for transient vibration events and 0.50 PPV for continuous events.

Table 9: Example Construction Vibration Levels[14]

Equipment	PPV at 50 ft. (in/sec)[15]
Vibratory Roller	0.049
Hydraulic Breaker	0.03 to 0.08
Large Bulldozer	0.03
Loaded Trucks	0.03
Excavator	0.03
Caisson/pier drilling	0.03
Jackhammer	0.01
Small Bulldozer	0.001
Crane, Forklift, Bobcat	No significant vibration

Based on the vibration levels shown in Table 9, construction equipment is not expected to cause structural damage to adjacent properties because project construction is not expected to exceed the thresholds for new residential buildings or commercial/industrial structures as shown above in Table 3. Ground-borne noise would also not be expected to be significant at these vibration levels.

FUTURE LOADING DOCK AND INTRA-PROJECT TRAFFIC NOISE

Future Loading Dock Calculation Methodology

Operational noise from the proposed facility is expected to consist primarily of tractor-trailers accessing loading dock areas. To estimate truck noise at the proposed facility, we referenced recently measured noise levels at a local distribution facility which involved semi-trucks similar in size to those that are expected to access the proposed project's facility.

Calculations for resulting noise levels due to on-site truck and car trip generation durations and activities were based on the measurements at this local distribution facility with ancillary information provided to us for that project on 15 February 2018 and 20 December 2023.

Based on the assumptions described below, estimated noise levels were then compared to applicable criteria to determine if noise from the proposed facility would exceed the City's noise goals (described above) at adjacent residences.

14 Table 12-2, Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

15 Using a value of n = 1.5 per FTA recommendation, where n is the attenuation rate through the ground

Traffic volumes produced by the proposed project were provided by TJKM in December 2023. Their study estimated that a total of 213 truck trips[16] would occur at the facilities throughout the 24 hours of operation. Overton Moore Properties provided further details about the potentially likely distribution of those trucks each hour throughout the 24-hour operation period.

Intra-Project Traffic Analysis Methodology

Intra-project traffic noise will consist of traffic noise associated with future warehouse employee vehicles within the designated parking lots. To estimate vehicle noise at the employee parking lots, we referenced the TJKM provided traffic volumes for the proposed project.

Noise Source Analysis and Assumptions

Future Loading Docks

Our analysis estimated future noise from the facility based on the following assumptions discussed with the client via email, and per the overall site plan:

1. Trucks will enter and exit the site from Atlantis Court and Challenger Street, from the north (via Discovery Drive).
2. Non-truck noises associated with loading/unloading activity (i.e., forklifts, rolling doors, carts, pallet crushing, items dropping), are assumed to be located near the dock doors and are included in our analysis.
3. An average truck trip (not including unloading/loading) is estimated to last for a cumulative period of about 2 minutes and be at least 1025 feet from the nearest residential property line.
4. Trucks occupy the loading dock in their loading area that is nearest to noise-sensitive receiver (Residents across Isabel Avenue, to the east of the building).
5. Total number of loading docks: 130 (68 in Building 1 and 62 in Building 2)
6. Number and distribution of truck trips is based on TJKM's traffic study estimate, with approximately 213 total truck trips per 24-hour period (continuous 24/7 operation) distributed as follows:
    - AM Peak is 7-9 AM – 9.4%
    - 9-4 PM – 42.7%
    - PM Peak is 4 PM - 6 PM – 12.7%
    - 6 PM - 10 PM – 16.4%
    - 10 PM - 7 AM – 18.8%

[16] Email correspondence provided on 12/20/23 confirmed the 213 daily truck trips as 20% of total vehicle trips based in ITE data (TJKM Study)

7. Building 2 provides substantial acoustical shielding for most of Building 1 and its operations to the eastern residents. Because of this, Building 1 is not expected to have a meaningful impact on the residential receivers' sound environment to the east.
8. Loading docks in Building 2 are located on the north and south facades, configured to maintain the maximum possible distance away from the residential area to the east.
9. North-facing docks of Building 2 will have a direct line-of-sight to the warehouse to the north. We assume that some shielding is provided by the perpendicular orientation of the docks of Building 1, which would slightly reduce our overall calculated noise contribution of the loading docks to the northern warehouse receivers because of the partial line-of-sight.
10. 24-hour operation assumed.
11. Loading docks not in use on each building have closed doors.
12. A typical truck "trip" consists of the following events (estimated sound levels based on aforementioned measurements at similar facilities):
    a. Truck passby (arrival, departure at slow speed): 69 dBA at 30 feet
    b. Truck airbrakes: 72 dBA at 25 feet
    c. Truck backup alarm: 79 dBA at 30 feet
    d. Brief idle before engine shutoff: 70 dBA at 25 feet
    e. Truck engine ignition and airbrakes: 71 dBA at 25 feet
    f. Truck accelerating from stop: 74 dBA at 25 feet
    g. Truck noise source reference heights[17] (above grade)
        i. Passby, brief idle, acceleration, and ignition: 8 feet
        ii. Back-up beeper and airbrake: 2.5 feet
        iii. Topographical site analysis included in Section C3.1 of the Grading and Drainage Plan show potential terrain shielding of about three feet between the dock elevation and receivers to the east of Isabel Avenue

Intra-Project Traffic Noise

Our analysis estimated future noise from the facility parking lots is based on the following assumptions:

1. Employees will enter and exit the site from Atlantis Court and Challenger Street, from the north (via Discovery Drive).
2. Once on site, vehicles will move at 15 miles per hour or less.
3. Vehicles will be spread out evenly amongst the seven parking areas.

[17] Truck source heights excerpted from Caltrans Technical Noise Supplement document (TeNS) document dated October 1998.

4. An average vehicle trip is estimated to last for a cumulative period of about 2 minutes and be at least 550 feet from the nearest residential property line.
5. Similar proportional percentages were assumed for vehicle trips in the project parking lots as were the truck trips, as shown in the distribution below.
    - AM Peak is 7 AM - 9 AM- 9.4%
    - 9 AM – 4 PM -42.7%
    - PM Peak is 4 PM -6 PM -12.7%
    - 7 PM - 10 PM 16.4%
    - 10 PM - 7 AM 18.8%

Estimated Future Noise Levels

Future Average Noise Levels (CNEL/DNL)

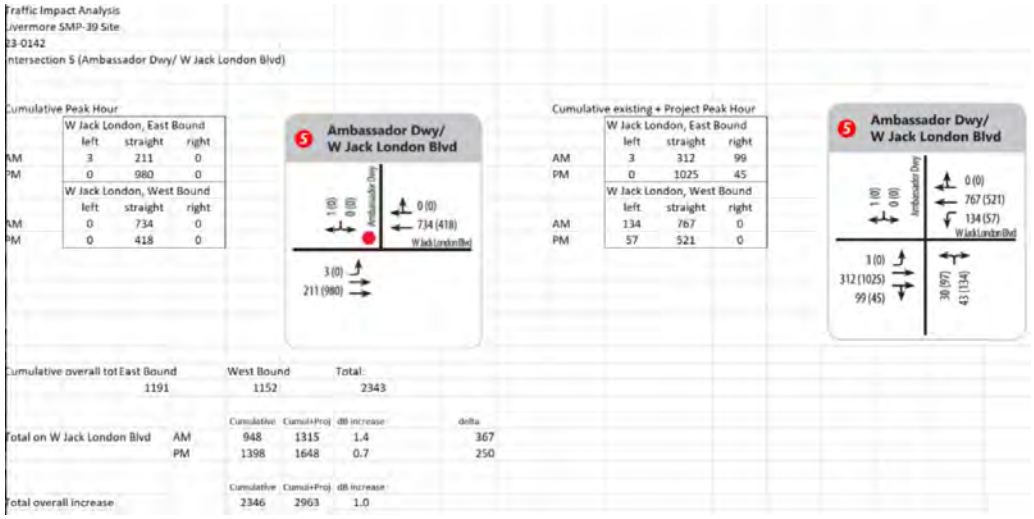
We estimated noise levels at local receptors from the sources described in the previous section. To account for future increases in local traffic noise levels (growth in traffic on Isabel Avenue and other local roadways), we added 1 dB DNL to the measured levels[18] (see Table 4 above).

We calculated the acoustical impact of project traffic increase due to both projects SMP-39 and SMP-40 with the provided peak hour traffic volumes for the cumulative without project and cumulative with project scenarios. The analysis used the FHWA-RD-77-108 traffic noise calculation model. The figures below show the various calculations for the intersections of interest (i.e., 5, 9, 10, and 11) as provided to us via the traffic volume study developed for both SMP-39 and SMP-40.

Figure A: Intersection Map Legend

[18] The California Department of Transportation assumes a traffic volume increase of three-percent per year, which corresponds to a 1 dBA increase in DNL over a ten-year period.

Figure B: Traffic Volume Analysis for Intersection 5



Traffic Impact Analysis
Livermore SMP-39 Site
23-0142
Intersection 5 (Ambassador Dwy/ W Jack London Blvd)

Cumulative Peak Hour

	W Jack London, East Bound		
	left	straight	right
AM	3	211	0
PM	0	980	0
	W Jack London, West Bound		
	left	straight	right
AM	0	734	0
PM	0	418	0

Ambassador Dwy/ W Jack London Blvd
1 (0)
0 (0)
0 (0)
734 (418)
3 (0)
211 (980)

Cumulative existing + Project Peak Hour

	W Jack London, East Bound		
	left	straight	right
AM	3	312	99
PM	0	1025	45
	W Jack London, West Bound		
	left	straight	right
AM	134	767	0
PM	57	521	0

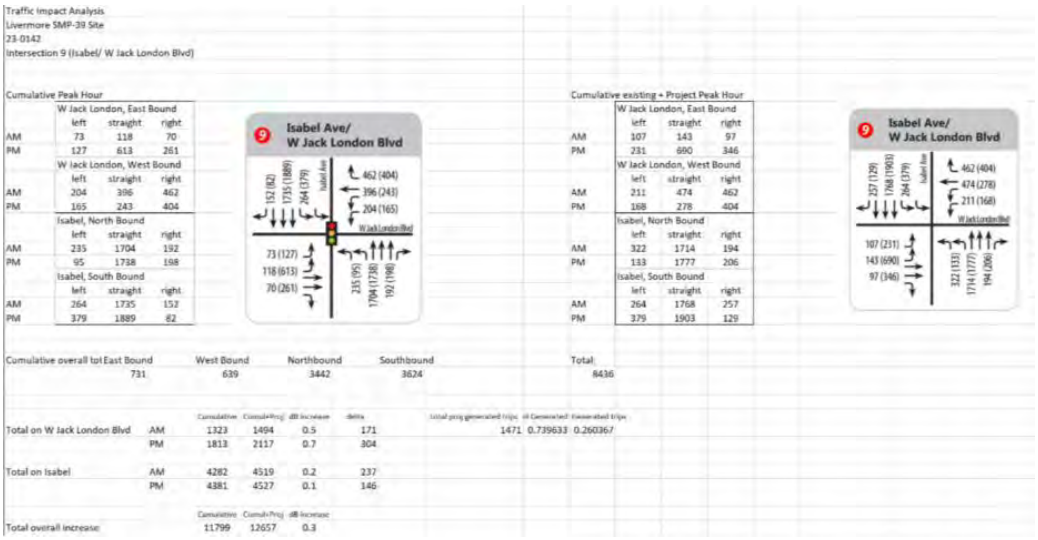
Ambassador Dwy/ W Jack London Blvd
1 (0)
0 (0)
0 (0)
767 (521)
134 (57)
3 (0)
312 (1025)
99 (45)
38 (97)
43 (134)

Cumulative overall tot	East Bound	West Bound	Total:
	1191	1152	2343

		Cumulative	Cumul+Proj	dB increase	delta
Total on W Jack London Blvd	AM	948	1315	1.4	367
	PM	1398	1648	0.7	250

	Cumulative	Cumul+Proj	dB increase
Total overall increase	2346	2963	1.0

Figure C: Traffic Volume Analysis for Intersection 9



Traffic Impact Analysis
Livermore SMP-39 Site
23-0142
Intersection 9 (Isabel/ W Jack London Blvd)

Cumulative Peak Hour

	W Jack London, East Bound		
	left	straight	right
AM	73	118	70
PM	127	613	261
	W Jack London, West Bound		
	left	straight	right
AM	204	396	462
PM	165	243	404
	Isabel, North Bound		
	left	straight	right
AM	235	1704	192
PM	95	1738	198
	Isabel, South Bound		
	left	straight	right
AM	264	1735	152
PM	379	1889	82

Isabel Ave/ W Jack London Blvd
152 (82)
735 (1889)
264 (379)
462 (404)
396 (243)
204 (165)
73 (127)
118 (613)
70 (261)
235 (95)
1704 (1738)
192 (198)

Cumulative existing + Project Peak Hour

	W Jack London, East Bound		
	left	straight	right
AM	107	143	97
PM	231	690	346
	W Jack London, West Bound		
	left	straight	right
AM	211	474	462
PM	168	278	404
	Isabel, North Bound		
	left	straight	right
AM	322	1714	194
PM	133	1777	206
	Isabel, South Bound		
	left	straight	right
AM	264	1768	257
PM	379	1903	129

Isabel Ave/ W Jack London Blvd
257 (129)
1768 (1903)
264 (379)
462 (404)
474 (278)
211 (168)
107 (231)
143 (690)
97 (346)
322 (133)
1714 (1777)
194 (206)

Cumulative overall tot	East Bound	West Bound	Northbound	Southbound	Total:
	731	639	3442	3624	8436

		Cumulative	Cumul+Proj	dB increase	delta	Total proj generated trips	% Generated	Passer-by trips
Total on W Jack London Blvd	AM	1323	1494	0.5	171	1471	0.739633	0.260367
	PM	1813	2117	0.7	304			
Total on Isabel	AM	4282	4519	0.2	237			
	PM	4381	4527	0.1	146			

	Cumulative	Cumul+Proj	dB increase
Total overall increase	11799	12657	0.3

Figure D: Traffic Volume Analysis for Intersection 10

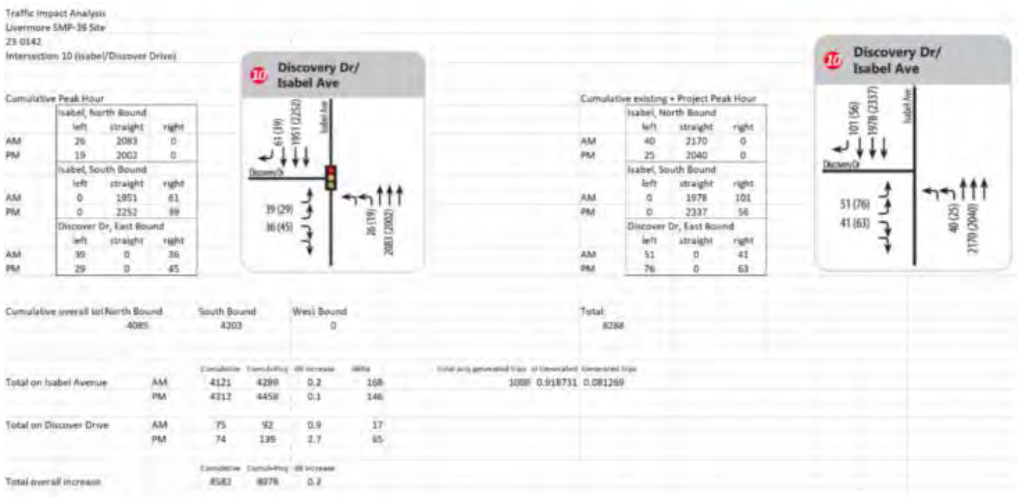
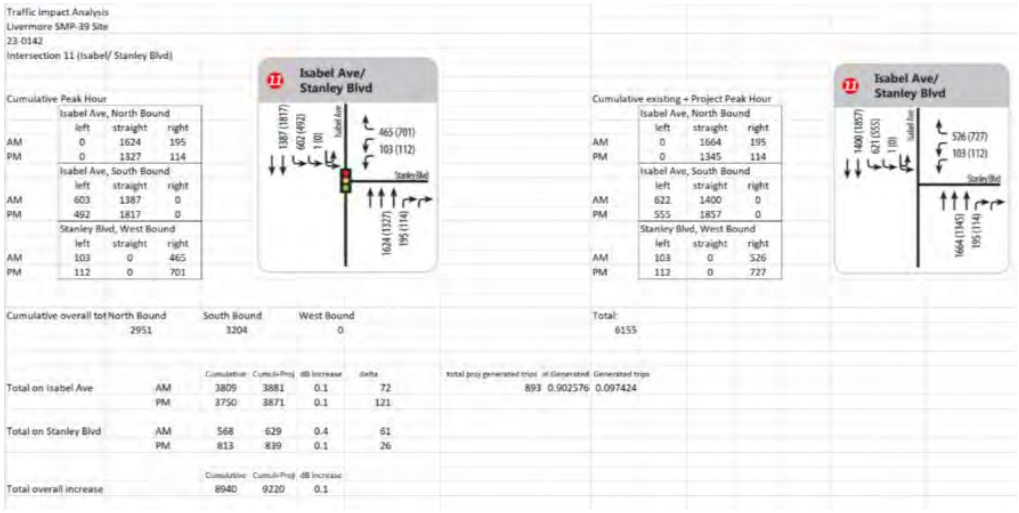


Figure E: Traffic Volume Analysis for Intersection 11



As shown above, the increase in traffic due to the project would be approximately 1 to 2 dBA to the DNL when combined.

Table 10 below summarizes the estimated DNL levels at the closest property plane to the east of the building, under the assumption that the facility would receive its trucking and commuting employee activities during the 24 hours of operation.

Table 10: Calculated 24-Hour Future Facility Noise at Nearest Noise-Sensitive Land Uses: CNEL/DNL, dBA

Nearby Receiving Locations	Existing Noise at Receiver (Residences)	Loading Docks at Receiver	Intra-Project Traffic Noise Levels at Receiver	Combined Existing plus Project	Change (dBA)
East Property Line (Residences across Isabel)	67	60	32	69	+2
North Property Line (Neighboring Warehouse)	65	65	36	68	+3

The calculated increase in DNL at the residential property line with the project and future traffic noise levels (near term 2025) will be approximately 2 dB. At the northern industrial uses, a DNL 3 dB change is predicted. A change of 3 dB or less is not expected to be noticeable and is not considered significant.

Our calculations of maximum noise levels assume that the trucks operating at the closest docks to the residences will be active at the same proportion as stated above. The noise analysis also assessed the increase in traffic noise levels resulting from project traffic in combination with future traffic noise level increases on the surrounding roadway network resulting from other anticipated development in the region. The resultant cumulative increase is 3 dB. This would not be considered a significant increase to the predicted project operation noise environment.

Future L_{50} Noise Levels

The following assumptions were made about the 24-hour operation of the project in our estimated L_{50} calculations:

- The volume of expected truck trips is consistent with the truck trip distribution established in item 6 of the Noise Source Analysis and Assumptions section (i.e., a maximum of 5 trucks per hour at nighttime, or 18.8% of trucks between 10:00 pm and 7:00 am).
- The 6- and 10-foot berms will be incorporated into the project.
- Backup alarms are expected to be at a height of approximately 2.5 feet.
- Trucks do not move great distances when their backup alarm is engaged.

Table 11 summarizes the estimated daytime and nighttime L_{50} for the proposed project. Since backup alarms for nighttime are predicted to occur less than 15 minutes per hour, the criterion can increase by 5 dBA per Policy P2. However, since back up alarms would be more than 15 minutes per hour during the daytime, no additional increases are accounted for in our analysis.

Table 11: Calculated 24-Hour Future Facility L_{50} Value: L_{50}, dBA

Time of Day	Estimated L_{50} Value	Criterion L_{50} Value
Daytime (7am-10pm)	50 dBA	55 dBA
Nighttime (10pm-7am)	45 dBA	50 dBA

Although our calculations of overall operational L_{50} noise levels do not exceed the allowable values stated by the City (i.e., Policy P1, Objective N-1.5), backup alarm noise may be audible at residences to the east during quieter nighttime hours. It is our understanding that other current similar projects in the vicinity have caused local neighbor complaints due to trucks' back-up alarms at those locations in the past.

Back-up alarms were assumed to be 79 dB at a reference distance of 30 feet. The distance attenuation between the loading dock to the façade of the nearest residence provides a 31 dB reduction. Although backup alarms would be audible from the residences, the L_{50} threshold of 50 dBA will not be exceeded due to the limited number of trips during this timeframe (estimated at 40 trips in 9-hour time frame).

Calculations assumed the source height of these backup alarms to be approximately 2.5 feet from grade. The incorporation of the proposed 6- and 10-foot-tall berms would adequately obstruct the direct line-of-sight of these backup alarms to the residential receivers. The dimensions of the proposed berms are calculated to reduce intermittent noise levels (such as those produced by backup alarms) by up to 6 dB at the closest residents.

Quieter backup alarms (aka "squawkers"), which are becoming more prevalent in delivery vehicles for various large e-commerce websites, and other vendors, may be used by trucking operators visiting this site in the future, therefore beeper noise has the potential to be reduced. A best practice for consideration would be to implement these alternative devices in other truck populations in the future.

CONCLUSIONS AND COMMENTS

1. Future cumulative project site noise from rooftop HVAC equipment, loading dock-generated noise, stationary trucks, and employee vehicles, is not expected to significantly impact receivers to the east or to the north. The calculated increase in CNEL/DNL for the warehouse receivers to the north will be 3 dB, while the closest residential receivers across Isabel Avenue will have a 2dB increase from the existing environment under the expected 24-hour operations.

   A change of 3 dB or less is not considered significant for residents to the east or the commercial neighbors to the north of the project site. A cumulative DNL of 69 dB for the receivers does not exceed the industrial 75 dB DNL threshold defined in Table 9-7 of the Livermore Noise Element as well as the L_{50} level from Objective N-1.5 of the General Plan.

   Considering the 1,025-foot distance between the nearest loading dock and the closest residents, and the trucks being a stationary source rather than a moving vehicle once the leaving the loading dock area of the project site, the city's L_{50} criterion is not applicable once a truck begins moving closer to the residential area. Given the minority of expected project truck trips conducted in the nighttime

hours (less than 5 trips per hour on average from 10 PM to 7 AM), noise from stationary trucks at the nearest loading dock are expected to comply with the City's L_{50} nighttime requirement assuming backup alarms are not continuously operating for more than 30 minutes per hour.

2. Temporary construction noise will impact the residences, and thus, it will be necessary to incorporate mitigation measures such as a 10-foot-tall berm or barrier on the east side of the project to reduce the noise by 10 dB.

3. It is our understanding that there are no State or Federal requirements for noise levels of backup alarms except for OSHA, which only requires them to be "significantly louder" than the surrounding environment. Because the background noise levels around most facilities are not known, manufacturers typically increase the alarm volume to compensate.

   Best practices to reduce alarm audibility at the facility to be evaluated would be to require users to limit alarm volume levels, employ signal personnel, lights, and other means to notify people about ongoing truck activities within the facility.

* * *

Cc: Jennifer Freedman (jfreedman@omprop.com)

APPENDIX A: FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL NOISE

This section provides background information to aid in understanding the technical aspects of this report.

Three dimensions of environmental noise are important in determining subjective response. These are:

- The intensity or level of the sound
- The frequency spectrum of the sound
- The time-varying character of the sound

Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dBA), with 0 dBA corresponding roughly to the threshold of hearing.

The "frequency" of a sound refers to the number of complete pressure fluctuations per second in the sound. The unit of measurement is the cycle per second (cps) or hertz (Hz). Most of the sounds, which we hear in the environment, do not consist of a single frequency, but of a broad band of frequencies, differing in level. The name of the frequency and level content of a sound is its sound spectrum. A sound spectrum for engineering purposes is typically described in terms of octave bands, which separate the audible frequency range (for human beings, from about 20 to 20,000 Hz) into ten segments.

Many rating methods have been devised to permit comparisons of sounds having quite different spectra. Surprisingly, the simplest method correlates with human response practically as well as the more complex methods. This method consists of evaluating all of the frequencies of a sound in accordance with a weighting that progressively de-emphasizes the importance of frequency components below 1000 Hz and above 5000 Hz. This frequency weighting reflects the fact that human hearing is less sensitive at low frequencies and at extreme high frequencies relative to the mid-range.

The weighting system described above is called "A"-weighting, and the level so measured is called the "A-weighted sound level" or "A-weighted noise level." The unit of A-weighted sound level is sometimes abbreviated "dBA." In practice, the sound level is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting characteristic. All U.S. and international standard sound level meters include such a filter. Typical sound levels found in the environment and in industry are shown in Figure A-1.

Although a single sound level value may adequately describe environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise is a conglomeration of distant noise sources, which results in a relatively steady background noise having no identifiable source. These distant sources may include traffic, wind in trees, industrial activities, etc. and are relatively constant from moment to moment. As natural forces change or as human activity follows its daily cycle, the sound level may vary slowly from hour to hour. Superimposed on this slowly varying background is a succession of

identifiable noisy events of brief duration. These may include nearby activities such as single vehicle pass-bys, aircraft flyovers, etc. which cause the environmental noise level to vary from instant to instant.

To describe the time-varying character of environmental noise, statistical noise descriptors were developed. "L10" is the A-weighted sound level equaled or exceeded during 10 percent of a stated time period. The L10 is considered a good measure of the maximum sound levels caused by discrete noise events. "L50" is the A-weighted sound level that is equaled or exceeded 50 percent of a stated time period; it represents the median sound level. The "L90" is the A-weighted sound level equaled or exceeded during 90 percent of a stated time period and is used to describe the background noise.

As it is often cumbersome to quantify the noise environment with a set of statistical descriptors, a single number called the average sound level or "L_{eq}" is now widely used. The term "L_{eq}" originated from the concept of a so-called equivalent sound level which contains the same acoustical energy as a varying sound level during the same time period. In simple but accurate technical language, the L_{eq} is the average A-weighted sound level in a stated time period. The L_{eq} is particularly useful in describing the subjective change in an environment where the source of noise remains the same but there is change in the level of activity. Widening roads and/or increasing traffic are examples of this kind of situation.

In determining the daily measure of environmental noise, it is important to account for the different response of people to daytime and nighttime noise. During the nighttime, exterior background noise levels are generally lower than in the daytime; however, most household noise also decreases at night, thus exterior noise intrusions again become noticeable. Further, most people trying to sleep at night are more sensitive to noise. To account for human sensitivity to nighttime noise levels, a special descriptor was developed. The descriptor is called the L_{dn} (Day/Night Average Sound Level), which represents the 24-hour average sound level with a penalty for noise occurring at night. The L_{dn} computation divides the 24-hour day into two periods: daytime (7:00 am to 10:00 pm); and nighttime (10:00 pm to 7:00 am). The nighttime sound levels are assigned a 10 dBA penalty prior to averaging with daytime hourly sound levels.

For highway noise environments, the average noise level during the peak hour traffic volume is approximately equal to the L_{dn}.

The effects of noise on people can be listed in three general categories:

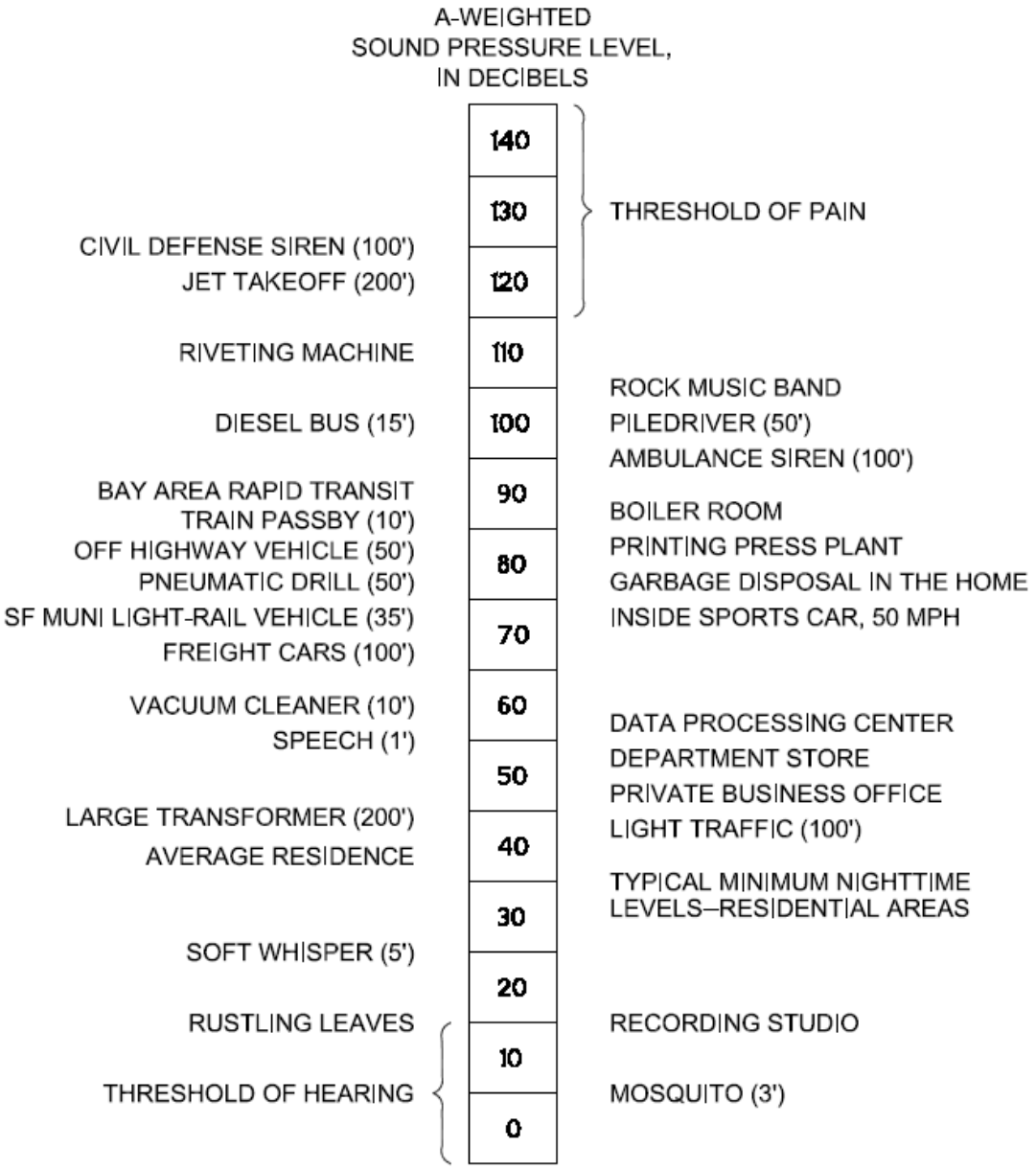
- Subjective effects of annoyance, nuisance, dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as startle, hearing loss

The sound levels associated with environmental noise usually produce effects only in the first two categories. Unfortunately, there has never been a completely predictable measure for the subjective effects of noise nor of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and habituation to noise over time.

Thus, an important factor in assessing a person's subjective reaction is to compare the new noise environment to the existing noise environment. In general, the more a new noise exceeds the existing, the less acceptable the new noise will be judged.

With regard to increases in noise level, knowledge of the following relationships will be helpful in understanding the quantitative sections of this report:

Except in carefully controlled laboratory experiments, a change of only 1 dBA in sound level cannot be perceived. Outside of the laboratory, a 3 dBA change is considered a just-noticeable difference. A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. A 10 dBA change is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse community response.



TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY

FIGURE A1

1107 C 11.25.03

Salter

San Francisco

San Jose

Los Angeles

Honolulu

Seattle

www.salter-inc.com

EXHIBIT E

SALTER © 2023
FOR ACOUSTICAL DESIGN INFORMATION ONLY

OAKS BUSINESS PARK – SMP–40 MEASUREMENT LOCATIONS AND MEASURED NOISE LEVELS

FIGURE 1

Salter # 21–0471

MEV/ECS 02.21.23

2113

SMP 39/SMP 40 Project
Supplemental Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum

In addition to the letters that were provided responses in the "Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum", as well as the "Supplemental Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum" dated March 4, 2024, the City received four subsequent comment letters in regard to the proposed project. Written comments were received from the following entities:

Date	Commenter
3/5/2024	Grace Holbrook, Attorneys for Carpenters Local 713 (1)
3/5/2024	Grace Holbrook, Attorneys for Carpenters Local 713 (2)
N/A	Pete Sheehan, Golden State Environmental Justice Alliance
3/5/2024	Margaret R. Akerblom, Allen Matkins Leck Gamble Mallory & Natsis LLP

While CEQA does not require that written responses be provided for letters received after the close of the public review period, the comments are acknowledged by the City, and the City has chosen to prepare written responses to the comments for the decision-makers consideration in making an informed decision. Responses to the comment letters, which are included as Attachment 1, are provided below. Where revisions to the EIR text are required in response to a comment, new text is double underlined and deleted text is ~~struck through~~.

The comments received did not identify any new significant impact, substantial increase in severity of a significant impact identified in the EIR, or any significant new information. Therefore, recirculation of the EIR is not required.

Response to Grace Holbrook, Attorneys for Carpenters Local 713 (1)
The majority of the comment letter, including the entirety of Comment I and Comment II within the comment letter, is identical to the comment letter dated February 14, 2024 submitted by Attorneys for Carpenters Local 713 and responded to in the "Supplemental Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum" dated March 4, 2024. As such, with regard to Comment I and Comment II included in the comment letter, please see the "Supplemental Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum."

The only new comment included in the letter is Comment III related to certification/recirculation of the Final EIR. See the response provided below regarding certification/recirculation of the EIR. As discussed above, CEQA does not require that written responses be provided for letters received after the close of the public review period. Nonetheless, the City has voluntarily provided written responses to all letters submitted by the commenter, including those received after the close of the Draft EIR public review period, and has addressed all environmental issues mentioned in the comment letters. The commenter does not provide any justification to support their claim that "the City provided inadequate responses" to their concerns.

Response to Grace Holbrook, Attorneys for Carpenters Local 713 (2)
As clearly stated in the in the "Supplemental Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum" dated March 4, 2024, under *Laurel Heights Improvement Ass'n v Regents of Univ. of Cal.* (1993) 6 C4th 1112

(*Laurel Heights II*) and Section 15088.5 of the State CEQA Guidelines,[1] a lead agency is only required to recirculate a draft EIR when "significant new information" is added to the document after public notice is given of the availability of the Draft EIR for public review under Section 15087 but before certification. Pursuant to CEQA Guidelines Section 15088.5, the term "information" can include changes in the project or environmental setting, as well as additional data or other information. New information added to an EIR is not considered "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the City has decided not to implement. "Significant new information" requiring recirculation includes any of the following:

1. A new significant environmental impact would result from the project or for a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from other previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
4. The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

The revisions made to the Draft EIR in response to comments received did not identify any new significant impact, substantial increase in severity of a significant impact identified in the EIR, or any significant new information. Specifically, in the case of the proposed project, while revisions were made to Chapter 4.6, Noise, of the Draft EIR, the Draft EIR already determined that the proposed project would result in a significant temporary construction noise impact (see page 4.6-23 of the Draft EIR). Thus, a new impact related to noise has not been identified in response to public comments. In addition, the revisions did not find that the Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. Therefore, recirculation of the EIR related to criteria 1, 2, or 4, described above, is not required.

With regard to criterion 3, while a new construction noise mitigation measure (Mitigation Measure 4.6-1[a]) has been added in response to public comments, the measure is feasible and would clearly lessen the potential environmental impact to a less-than-significant level. In addition, the requirements of Mitigation Measure 4.6-1(a) are similar to the requirements already included in Mitigation Measure 4.6-1 of the Draft EIR. Furthermore, the applicant has agreed to adopt Mitigation Measure 4.6-1(a). Thus, according to Section 15188.5(a)(3), recirculation is not required.

The written responses to comments received after the close of the Draft EIR public review period, as well as the associated errata showing further revisions to the Draft EIR text since the Final EIR was released, are included in the record and considered part of the EIR. As stated in the Findings, Facts in Support of Findings, and Statement of Overriding Considerations prepared for the proposed project, the Draft EIR, Final EIR, Mitigation Monitoring and Reporting Program (MMRP), and the written responses to comments and associated errata prepared subsequent to the Final EIR that were included with the Planning Commission and City Council staff reports together comprise the EIR for the project.

[1] Stephen L. Kostka and Michael H. Zischke. *Practice Under the California Environmental Quality Act, Second Edition, March 2022 Update, Volume 2*. March 2022, pg. 16-21.

It should also be noted that, while the commenter states that, "the Planning Commission must not certify the Final EIR until, at a minimum, the document reflects the most up-to-date version," the Planning Commission is not charged with certifying the Final EIR. Rather, the Planning Commission's action related to the CEQA document for the proposed project is whether or not to recommend that City Council adopt a resolution certifying the Final EIR. The City Council has the decision-making authority on the proposed project.

Response to Pete Sheehan, Golden State Environmental Justice Alliance

The comment letter does not provide any new information or comments beyond the comment letter dated October 13, 2023, submitted by Golden State Environmental Justice Alliance during the Draft EIR comment period, to which the City provided responses in the Final EIR. As such, with regard to the comments and information included in this subsequent comment letter, please see Response to Comment 6-8 included on page 2-105 of the Final EIR. As stated therein, the commenter's concerns and information appear to be related to environmental justice; however, CEQA Guidelines Appendix G does not include a section specifically dedicated to the topic of environmental justice. In addition, the analysis of potential health effects of criteria pollutants is discussed under Impact 4.2-6 of the Draft EIR, which begins on page 4.2-54. The Draft EIR also includes an evaluation of aggregate total health risks in the Air Quality, Greenhouse Gas Emissions, and Energy chapter, starting on page 4.2-58. As detailed therein, in accordance with Bay Area Air Quality Management District (BAAQMD) Air Quality Guidelines, an analysis of all known sources of toxic air contaminants (TACs) within a 1,000-foot radius of the project site boundary was conducted, in conjunction with health risks associated with the proposed project, and compared to the applicable BAAQMD thresholds of significance. As shown in Table 4.2-12 of the Draft EIR on page 4.2-58, the evaluation included a quantitative analysis of health risks associated with heavy-duty truck operations, emergency generators, and vehicles traveling along Isabel Avenue/SR 84. The Draft EIR concludes that the proposed project would not cause an aggregate total increase in cancer risk levels of more than 100 persons in one million, a chronic non-cancer hazard index greater than 10.0, or result in an annual average concentration of 0.8 micrograms per cubic meter ($\mu g/m^3$) or greater of particulate matter 2.5 micrometers in diameter ($PM_{2.5}$), and a less-than-significant impact would occur.

Furthermore, the Draft EIR notes in several instances throughout Chapter 4.2, Air Quality, Greenhouse Gas Emissions, and Energy, that the San Francisco Bay Area Air Basin is designated as nonattainment for State and federal eight-hour ozone and State PM_{10} ambient air quality standards (AAQS). The BAAQMD's thresholds of significance for CEQA review were established with consideration given to the health-based AAQS and are designed to aid the BAAQMD in implementing the applicable attainment plans to achieve attainment of the AAQS.[2]

Response to Margaret R. Akerblom, Allen Matkins Leck Gamble Mallory & Natsis LLP

The provision of safety features and fencing along the proposed trail are not a CEQA issue. The proposed trail would be constructed in accordance with all applicable City standards, including those set forth within Chapter 12, Parks and Trails, of the City of Livermore Design Standards and Guidelines, and all additional design standards included in the proposed SMP 40 Development Agreement. The proposed trail design is conceptual at this time. The City will review the final design of the trail to ensure consistency with all applicable standards. To assume that the public would leave the Zone 7 portion of the proposed trail and enter the Arroyo Mocho or the adjacent mining properties, or that doing so would create a substantial public safety hazard, is speculative. The comment is noted for the record and will be forwarded to the decision-makers for their consideration.

[2] Bay Area Air Quality Management District. *Air Quality Guidelines* [pg. 5-10]. April 2023.

Additional Staff-Initiated Changes
Based on comments received by the Planning Commission during the March 5, 2024 public hearing on the proposed project, the following additional staff-initiated changes have been made to Mitigation Measure 4.8-3 of the Draft EIR:

> *4.8-3* *Prior to the issuance of the first building permit, the project applicant shall be required to develop a Transportation Demand Management (TDM) Program for SMP 39 and SMP 40. The TDM Program shall be monitored by the project applicant/operator on an annual basis to determine the efficacy of the selected TDM strategies in achieving the reduction below the regional average VMT per employee of three percent (i.e., the performance target). An Annual Status Report on the TDM Program shall be submitted to the City of Livermore Engineering Division beginning a year after the issuance of any certificate of occupancy and shall include details on the TDM strategies, including an Employer Carpool Program which has a goal to reduce VMT per employee by approximately four percent and, thus, would meet and exceed the performance target. The Employer Carpool Program shall implement a ridesharing program and establish a permanent transportation management association with funding requirements for employers. Data shall be collected in October of each year and the Annual Status Report shall be submitted by December 31st of each year. The report shall be prepared in the form and format designated by the City. The data shall include project-generated VMT estimates compatible with the methodology used to estimate the benchmark VMT so that performance comparisons can be made. If the Annual Status Report demonstrates that the project is not in compliance with the performance target set forth in this mitigation measure, the project must incorporate additional TDM strategies to meet the performance target in coordination with City staff. The project applicant/operator may propose new TDM strategies that develop over time to further reduce project-generated VMT if substantial evidence is provided to support the efficacy of the strategy. If the Annual Status Reports demonstrate that the performance target has been achieved for ~~three~~ five consecutive years once SMP 39 and SMP 40 are both fully occupied and operational, the project shall no longer need to provide annual reporting. The five-year reporting requirement shall reset when a new use occupies any portion of the SMP 39 or SMP 40 property.*

The foregoing revisions are for clarification purposes and do not change the conclusions of the Draft EIR. In addition, the applicant has agreed to the foregoing changes to Mitigation Measure 4.8-3.

The MMRP, as well as the Findings, Facts in Support Of Findings, and Statement Of Overriding Considerations, have been updated to reflect all changes made to the Draft EIR text since the close of the Draft EIR public review period, and are included in the staff report packet for the City Council hearing on the proposed project.

Attachments
Attachment 1 – Comment Letters

Attachment 1

Comment Letters

VIA E-MAIL

March 5, 2024
City of Livermore Planning Commission
City Council Chambers
1016 S. Livermore Avenue
Livermore, CA 94550
Em: planning@LivermoreCA.gov

RE: City of Livermore's SMP 39 and 40 Planning Commission Meeting

Dear Ashley Vera,

On behalf of "**Carpenters Local 713**", my Office is submitting these comments for the City of Livermore's ("**City**") Draft Environmental Impact Report ("**Draft EIR**" or "**DEIR**") and Final Environmental Impact Report ("**Final EIR**" or "**FEIR**") for the **March 5, 2024 Planning Commission Meeting** for the SMP 39 and 40 Project ("**Project**").

According to the Project's Notice of Availability ("**NOA**") of a Draft EIR Project Description:

> "On **SMP 38**, the proposed project includes a Sphere of Influence (SOI) Amendment to **include** SMP 38 within the **City of Livermore** SOI and **remove** it from the **City of Pleasanton's** SOI. The City of Livermore General Plan land use designation for SMP 38 would remain Limited Agriculture and Open Space/Sand and Gravel and the Alameda County zoning designation would remain Agriculture. **Development of SMP 38** is **not proposed**.
>
> For **SMP 39**, the proposed project would include development of a total of **up to six light industrial buildings**, consisting of **up to approximately 755,500 square feet** (sf) of new building space, and associated **internal roadways** and **other** improvements. **For SMP 40**, the proposed project would include development of **two industrial buildings** containing up to **759,275 sf of new building space** with

related **internal roadways** and **other** improvements. A number of approvals would be required for development of SMP 39 and SMP 40, including a **SOI Amendment for SMP 39**, **General Plan Amendment**, **Pre-zoning** and **Annexation**, **Zoning Map Amendment**/Planned Development, Vesting Tentative Subdivision **Maps**, a **Pre-Annexation Agreement**, and **Development Agreement**. A **Site Plan Design Review** entitlement is required for SMP 39 and SMP 40, which would include a review of the site plan, building, and landscape design; however, the entitlement is **only proposed for SMP 40 at this time**. A Site Plan Design Review entitlement will be required **at a later date** for the future development of **SMP 39**. In addition, the proposed project would include **annexation of four additional parcels** (APNs 904-10-2-3, -5, -7, and -8) located **east of SMP 40**. Development is **not proposed** on the additional parcels **as part** of the proposed project.

The project would include a **paved at-grade, on-site trail along the boundaries** of the SMP 40 site, consistent with the City's Active Transportation Plan. Specifically, the on-site trail would extend from the northeastern corner of the site, along the project site's eastern, southern, and western boundaries, before connecting to an existing off-site paved shared-use path at the northwestern corner of site, which extends along the west side of the Oaks Business Park to the north and connects to West Jack London Boulevard.

In addition, the project would include a **new off-site connection to the existing Arroyo Mocho Trail**, located on the east side of Isabel Avenue/SR 84. For the purposes of the Draft EIR analysis, three alternatives for the proposed off-site Isabel Avenue/SR 84 crossing to the existing Arroyo Mocho Trail are considered and evaluated in the Draft EIR, including the following, and described in more detail in the Draft EIR:

- Trail Connection Option 1 – **At-Grade** Crossing at **Discovery Drive**;
- Trail Connection Option 2 – **Undercrossing** at **Isabel** Bridge; and
- Trail Connection Option 3 – **Overcrossing** of **Isabel** Avenue/SR 84."

NOA of Draft EIR, pp. 1-2, emph. added.

The concurrently circulated Draft EIR contains the same project description. DEIR, pp. 1-2—1-4.

Carpenters Local 713 is a labor union representing union carpenters in Alameda County , and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects.

Local 713 members live, work, and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

Carpenters Local 713 expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

Carpenters Local 713 incorporates by reference all comments related to the Project or its CEQA review, including the Environmental Impact Report. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, Carpenters Local 713 requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT

The City should require the Project to be built using local workers who have graduated from a Joint Labor-Management Apprenticeship Program and make a commitment to hiring a local workforce.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7,

[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 ("**AB2011**"). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts.

II. THE PROJECT WOULD BE APPROVED IN VIOLATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

A. Background Concerning the California Environmental Quality Act

The California Environmental Quality Act is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. 14 California Code of Regulations ("**CEQA Guidelines**"), § 15002, subd. (a)(1).[5] At its core, its purpose is to "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

1. Background Concerning Environmental Impact Reports

CEQA directs public agencies to avoid or reduce environmental damage, when possible, by requiring alternatives or mitigation measures. CEQA Guidelines, § 15002, subds. (a)(2)-(3); see also *Berkeley Keep Jets Over the Bay Committee v. Board of Port Comes* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *Laurel Heights Improvement Assn.*, 47 Cal.3d at p. 400. The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA

[5] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 et seq., are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. Cal. Pub. Res. Code, § 21083. The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217.

Guidelines, § 15002, subd. (a)(2). If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in Public Resources Code section 21081. See CEQA Guidelines, § 15092, subds. (b)(2)(A)-(B).

While the courts review an EIR using an 'abuse of discretion' standard, the reviewing court is not to *uncritically* rely on every study or analysis presented by a project proponent in support of its position. *Berkeley Jets*, 91 Cal.App.4th at p. 1355 (quoting *Laurel Heights Improvement Assn.*, 47 Cal.3d at pp. 391, 409 fn. 12) (internal quotations omitted). A clearly inadequate or unsupported study is entitled to no judicial deference. *Id.* Drawing this line and determining whether the EIR complies with CEQA's information disclosure requirements presents a question of law subject to independent review by the courts. *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131. As the court stated in *Berkeley Jets*, prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process. 91 Cal.App.4th at p. 1355 (internal quotations omitted).

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450). The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. *Id.* For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Id.*

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "fair argument" standard under which an EIR must be prepared whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail*

Botanical Gardens Found., Inc. v. City of Encinitas (1994) 29 Cal.App.4th 1597, 1602; *Friends of "B" St.* v. *City of Hayward* (1980) 106 Cal.3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." PRC, § 21151; see *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75; accord *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884. Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. PRC, §§ 21100 (a), 21151; CEQA Guidelines, § 15064 (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the agency must adopt a negative declaration. PRC, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063 (b)(2), 15064(f)(3).

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." PRC, § 21068; CEQA Guidelines, § 15382. A project may have a significant effect on the environment if there is a reasonable probability that it will result in a significant impact. *No Oil, Inc.*, 13 Cal.3d at p. 83 fn. 16; see *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309. If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063(b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrigation Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom*, 202 Cal.App.3d at p. 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen,* 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of*

Los Angeles (1982) 134 Cal.App.3d 491; *Friends of "B" St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064(f)(1).

B. The Project May Have a Significant Impact on Biological Resources

There is substantial evidence the Project will have a significant impact on biological resources. As discussed in further detail in a comment letter from biological resources expert Shawn Smallwood, PhD with regards to the proposed Project, incorporated by reference herein, "the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, interference with wildlife movement, and wildlife-automobile collision mortality." (See **Exhibit D** [December 12, 2023 comment letter from Shawn Smallwood, PhD regarding SMP 38, SMP 39, and SMP 40 biological resources analysis].)

First, for example, with regards to the potential for habitat loss, Dr. Smallwood predicts:

> SMP 38 (111.7 acres), SMP 39 (51.9 acres) and SMP 40 (41 acres) support 11.4 bird nests/acre/year. Based on this assumption, the combined projects, SMP 39 and SMP 40, on 92.9 acres would eliminate 1,059 nest sites, and assuming SMP 38 is also later developed, then the combined projects, SMP 38, SMP 39, ad SMP 40, on 204.6 would eliminate 2,332 nest sites.

(**Exhibit D**, p. 28.)

Accordingly, Dr. Smallwood points out that this loss in nest sites would constitute a significant impact from the Project that was not quantitatively addressed in the Draft EIR. (**Exhibit D**, p. 28.) Further, Dr. Smallwood notes that the loss in nests would lead to a loss in the reproductive capacity of the site, thus decreasing the number of birds at the Site over time. (*Id.*)

Second, Dr. Smallwood discusses the Projects impacts on interference with wildlife movement, highlighting that the DEIR's analysis of whether the Project will interfere with wildlife movement in the Project Site area is "flawed and misleading." (**Exhibit D**, p. 29.) Specifically, Dr. Smallwood states that:

> According to the DEIR, "The project area does not fall within an Essential Habitat Connectivity area mapped by the CDFW." However, at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18486, the California Essential Habitat Connectivity Project specifically points out

> that it is not: "A California Department of Fish and Game or US Fish and Wildlife Service response to potential impacts to a habitat or species from a project subject to the California Environmental Quality Act (CEQA)," nor "Fine scale, with every important piece of habitat identified" nor ""Essential", meaning the only places of importance" nor "A solution by itself for how to provide necessary linkages for any given species of plant or animal... Linkage designs will vary depending on focal species chosen and the goal of providing connected habitat for a chosen species might be met several different ways" nor "The final word on connectivity for California." With analytical grid cells of 2,000 acres, the spatial grain of the California Essential Habitat Connectivity Project is much too coarse for the conclusion the DEIR draws from it.

(**Exhibit D**, p. 29.)

Moreover, Dr. Smallwood points out that the DEIR contains a flawed "argument that SMP 39 is cut off from open areas by well-trafficked roads, the airport, the gravel quarries, and therefore cannot function as a wildlife movement corridor" and notes that the same argument is used for SMP 40. (*Id.*) However, as Dr. Smallwood notes, the DEIR simply uses speculation here and provides no supporting evidence to this assertion. (*Id.*)

Third, Dr. Smallwood discusses the Project's traffic impacts to wildlife, noting that traffic generated from the Project will endanger wildlife that must cross roads used by traffic getting to and from the Project Site. (**Exhibit D**, p. 30.) Dr. Smallwood discusses traffic-caused wildlife mortality and highlights various traffic mortality numbers collected from a wildlife mortality study performed only eleven (11) miles from the Project Site in the County of Contra Costa. (*Id.*) Dr. Smallwood concludes an analysis should be done on "whether increased traffic generated by the project site would similarly result in local impacts on wildlife." (*Id.* at p. 31.)

In addition, the biological impact analysis of the EIR is legally flawed for the following reasons.

First, the DEIR's biological resources impact analysis relies on multiple inadequate biological field surveys outlined in Appendices D and E of the DEIR prepared by Monk & Associates that are described in insufficient detail.

For example, with regards to the field surveys, the DEIR states that:

> "SMP 39 and SMP 40 were both first surveyed in 2000, with follow-up surveys over the years, including in November 2013, for various development proposals. In addition, a **project-specific field survey** was conducted on SMP 39 on **October 14, 2021**, and on SMP 40 on **June 10, 2019** to record biological resources within the sites, and to assess the likelihood of resource agency regulated areas to be located within the sites. An **additional survey** was conducted for SMP 40 on **June 21, 2019** to flag the Arroyo Mocho's riparian drip line to allow for the project engineers to survey the limits of the riparian vegetation and overlay the area on the project site plan, and **another general survey** of SMP 40 was conducted on **September 10, 2021.**"

DEIR, p. 4.3-24. [Emphasis added.']

However, the DEIR's reliance on these biological resources field surveys is improper for several reasons.

First, the DEIR and its accompanying Appendices D and E leave out crucial information about the site surveys.

In summarizing the various site surveys that occurred in 2013, 2019, and 2021, DEIR Appendix D's Biological Resources Analysis ("**SMP-39 BRA**") states that "[e]ach site survey involved searching all habitats on the site and recording all plant and wildlife species observed. . . ." and that the "evaluation included an examination of the site to determine if there could be potential areas within the project site that would be regulated as waters of the United States and/or State . . ." DEIR Appendix D, p. 2. Thus, the SMP-39 BRA field surveys seem to indicate that visual inspections were done during these site visits. However, SMP-39 BRA is insufficient for numerous reasons as it leaves out crucial information about the site surveys while relying on the surveys to form conclusions about the Project's potential biological resources impacts.

As a preliminary matter, *one* (1) single field survey alone for just the SMP-39 Project Site is insufficient to adequately identify all of the potential habitats and plant and wildlife species occurring within the Project Site, as the site surveys purport to have looked for. In the City's Final EIR Responses to Comments, Response No. 5-12, the City counters our office's prior comment that "[o]ne single field survey is sufficient to get a baseline description of a project site's pant communities and wildlife habitats and to determine if additional surveys for special-status species are necessary." (FEIR

Response to Comments, p. 2-75.) However, as Dr. Smallwood notes in his comment letter on the Project, "[m]ore surveys are needed than my two surveys [sic] to inventory use of the project site by wildlife" (**Exhibit D**, pp. 14-15), that the appropriate detection surveys have not been completed at SMP 39 and SMP 40," (*id.* at p. 17), that "[r]econnaissance surveys for wildlife are not designed to detect special-status species" indicating that protocol-level detection surveys are appropriate but that Monk & Associates did not perform such detection surveys here, thus rendering the Draft EIR's "characterization of the existing environmental setting . . . therefore incomplete and inaccurate." (*Id.* at p. 19.) Therefore, it is clear that the single survey conducted for SMP-39 is inadequate.

Moreover, the SMP-39 BRA does not specify what time of the day the surveys were conducted during, (DEIR Appendix D, p. 2) which, again, leaves open the possibility that certain species, for example, nocturnal species, could present themselves at different times of the day. This is further highlighted in Dr. Smallwood's comment letter, where he notes that:

> For none of the above surveys was there reporting of what time the surveys began, or how long the surveys lasted. No checklist is shared of habitat elements that the biologists might have used during their survey to later crosscheck against documented habitats of each special-status species. No explanation is provided of whether or how animal behavior data or other evidence contributed to the biologist's assessment of the site for its importance to animal movement. It is therefore difficult to assess survey outcomes relative to survey effort and methods.

(**Exhibit D**, p. 16.)

Even further, in one (1) single survey, the surveyor may fail to identify species that would only present themselves during certain times of the *year*. According to the SMP-39 BRA in Appendix D, for example, the most recent surveys were conducted in June 2019 (a summer month) and October 2021 (a fall month), while failing to account for the spring and winter months. DEIR Appendix D, p. 2. However, there may be certain plant or animal species that would not be identifiable to an observer during the summer or fall months but that could nevertheless be present at the Project Site and be identifiable during other seasons of the year. For example, and as noted by Dr. Smallwood, in response to the DEIR's assertion that no special-status plants were observed during some of the surveys at the Project Sites during various months over the years, Dr. Smallwood responds that this reporting is misleading

"because only one of the several surveys was conducted during the plant blooming season. Monk and Associates (2021, 2023) did not meet the minimum standards of [California Department of Fish and Wildlife's ("**CDFW**")] (2018) plant survey guidelines. While the FEIR's Responses to Comments counters our office's prior comments, asserting that the CDFW's survey guidelines cited are guidelines for conducting floristic surveys for rare and endangered or other special-status species, the site surveys still failed to meet the CDFW's minimum plant survey guidelines standards. Thus, new surveys must be conducted that meet these standards.

Therefore, the DEIR's reliance on surveys not in compliance with California Department of Fish and Wildlife's survey guidelines[6] and its misuse of the California Natural Diversity Database ("**CNDD**") resulted in potentially inaccurate determinations. For example, with regards to botanical field surveys, the CDFW's survey guidelines state that such field surveys should be conducted in a way that will maximize the likelihood of identifying special status plants and sensitive natural communities that may be present at a site.[7] Specifically, the guidelines state that "[m]ore than one field visit is usually necessary to adequately capture the floristic diversity of a project area."[8]

For each of the foregoing reasons, the Project may have a significant impact on biological resources. Accordingly, the DEIR's findings as to the Project's biological impacts are not supported with substantial evidence that is of verifiable or credible value and the DEIR must be revised and recirculated to reassess those impacts, including on the wildlife species with potential to occur on the Project Site using protocol-level detection surveys and describing those surveys with sufficient detail.

C. The Project May Have Significant Noise Impacts.

There is substantial evidence that the Project will have significant traffic impacts. As discussed by Principal Steve Rogers of Steve Rogers Acoustics, "the evaluation of noise impacts during the construction phases is incomplete and contains a significant

[6] *See*, California Natural Resources Agency, *Department of Fish and Wildlife Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities, available at* https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline, pp. 4, 5-6, accessed on Oct. 9, 2023), updated on Feb. 3, 2023; *see generally* California Department of Fish and Wildlife California Natural Diversity Database, *available at* https://wildlife.ca.gov/Data/CNDDB/Plants-and-Animals (last visited on Oct. 9, 2023.)

[7] California Natural Resources Agency, *supra*, at p. 4.

[8] *Id.*

calculation error." (**Exhibit E**, p. 3 [December 12, 2023 comment letter re City of Livermore SMP 38/SMP 39/SMP 40 Project Review of DEIR Noise Section & Appendices]), fully incorporated herein.

First, as noted by Mr. Rogers for the DEIR's construction noise impacts, the DEIR concludes there will be a less than significant impact for on-site construction, but per the DEIR's analysis, the DEIR fails to adequately support this conclusion for multiple reasons. (**Exhibit E**, p. 2.) For example, the DEIR fails to include SMP 39's construction noise impacts in its section 4.6 analysis. (*Id.*) Second, Mr. Rogers notes that the noise analysis for SMP 40 is incomplete. Specifically,

> The noise impact analysis for construction on the SMP 40 site compares Salter's noise level predictions with instantaneous maximum noise level (Lmax) limits of 70 dBA during the day and 60 dBA at night, which are taken from Policy N-1.5.P3 of the City of Livermore General Plan.
>
> However, these Lmax noise limits are not the only local regulations that would apply to construction noise on the SMP 40 site.
>
> . . .
>
> Similarly, the DEIR does not include an DNL analysis for construction noise from SMP 40 to show that it will be below the 60 dBA exterior noise standard taken from land-use compatibility table (Table 9-7) in the General Plan. This will be particularly important if any construction work is to occur at night.

(**Exhibit E**, pp. 2-3.)

Third, Mr. Rogers highlights that there was an error in the calculations for SMP 40 with regards to various construction equipment pieces at a 50-foot distance. (*Id.*) Lastly, Mr. Rogers states that the construction noise analysis on the east side of the SMP 40 site is overlooked, as it assumes receivers 884 feet away from the equipment, while during other phases of construction, the noisy equipment may be operating closer than 884-feet from nearby residential uses. (*Id.*)

For each of the foregoing reasons, the Project may have a significant noise impact and the EIR should therefore be revised and recirculated.

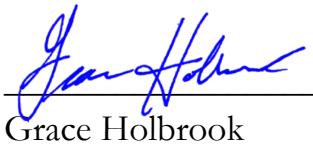
III. THE FEIR CANNOT BE CERTIFIED AS THE CITY HAS FAILED TO RESPOND TO THE ISSUES RAISED BY CARPENTERS LOCAL 713

The City's argues that recirculation of the EIR is not required as the comments submitted on the FEIR "did not identify any new significant effect, substantial increase in severity of an impact identified in the EIR, or any significant new information." (Staff Report **Exhibit D** at 1). However, as reiterated above, numerous substantial issues with the EIR were identified by Carpenters Local 713 in its two prior comment letters. (DEIR Comment Letter, **Exhibit F**; FEIR Comment Letter, **Exhibit G**). The City provided inadequate responses to the issues addressed in the DEIR Comment Letter. Further, despite the City stating that it would provide a response to the FEIR Comment Letter, no such memorandum has been provided prior to the comment deadline for this Planning Commission Hearing. (See Staff Report **Exhibit D** at 1). As the City has failed to provide responded to the significant issues raised by Carpenters Local 713, the FEIR cannot be certified under CEQA.

IV. CONCLUSION

Based on the foregoing, the City should deny the FEIR's certification, and the Environmental Impact Report should be revised and recirculated pursuant to CEQA, consistent with the comments and issues identified in this and previous comment letters.

Sincerely,



Grace Holbrook
Attorneys for Carpenters Local 713

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B);

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C);

December 12, 2023 Comment Letter from Biological Resources Expert regarding SMP 38, SMP 39, and SMP 40 Project (Exhibit D); and

December 12, 2023 Comment Letter from Noise Expert Steve Rogers regarding Review of DEIR Noise Section an Appendices (Exhibit E).

EXHIBIT A

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

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

EXHIBIT E

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6826**	**1,721.6826**	**0.1294**	**0.0000**	**1,724.9187**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6823**	**1,721.6823**	**0.1294**	**0.0000**	**1,724.9183**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2021	11-30-2021	1.4103	1.4103
2	12-1-2021	2-28-2022	1.3613	1.3613
3	3-1-2022	5-31-2022	1.1985	1.1985
4	6-1-2022	8-31-2022	1.1921	1.1921
5	9-1-2022	11-30-2022	1.1918	1.1918
6	12-1-2022	2-28-2023	1.0774	1.0774
7	3-1-2023	5-31-2023	1.0320	1.0320
8	6-1-2023	8-31-2023	1.0260	1.0260

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	2.8857	2.8857
11	**3-1-2024**	**5-31-2024**	1.6207	1.6207
		Highest	2.8857	2.8857

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6554**	**1,418.6554**	**0.1215**	**0.0000**	**1,421.6925**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6550**	**1,418.6550**	**0.1215**	**0.0000**	**1,421.6921**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4091	1.4091
2	**12-1-2021**	**2-28-2022**	1.3329	1.3329
3	**3-1-2022**	**5-31-2022**	1.1499	1.1499
4	**6-1-2022**	**8-31-2022**	1.1457	1.1457
5	**9-1-2022**	**11-30-2022**	1.1415	1.1415
6	**12-1-2022**	**2-28-2023**	1.0278	1.0278
7	**3-1-2023**	**5-31-2023**	0.9868	0.9868
8	**6-1-2023**	**8-31-2023**	0.9831	0.9831

9	**9-1-2023**	**11-30-2023**	0.9798	0.9798
10	**12-1-2023**	**2-29-2024**	2.8757	2.8757
11	**3-1-2024**	**5-31-2024**	1.6188	1.6188
		Highest	2.8757	2.8757

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

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

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

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

1640 5th St.., Suite 204 Santa
Santa Monica, California 90401
Tel: (949) 887-9013
Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Ashley Vera, Senior Planner
City of Livermore
Community Development Department
1052 S. Livermore Avenue
Livermore, CA 94550 12 December 2023

RE: SMP 38, SMP 39. SMP 40

Dear Ms. Vera,

I write to comment on potential impacts to biological resources that could result from the proposed SMP 38, SMP 39. SMP 40 Project, which I understand would add 1,514,275 square feet of floor space in eight speculative industrial buildings up to 55 feet tall on 217.04 acres located on APNs) 904-1-7-21; 904-1-2-12; 904-1-7-32; 904-3-1-4; 904-10-2-2, -3, -5, -7, and -8 west of Isabel Avenue, north of Stanley Boulevard, south of West Jack London Boulevard, and east of El Charro Road. I comment on the analyses of impacts to biological resources in the DEIR and in Monk & Associates (2021).

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, wildlife interactions with the anthrosphere, and conservation of rare and endangered species. I authored many papers on these and other topics. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I've lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-seven years. My CV is attached.

SITE VISIT

I visited the SMP 40 for 2.22 hours from 14:43 to 16:35 hours on 28 November 2023, and SMP 38 and SMP 39 for 2.83 hours from 06:45 to 09:35 hours on 29 November 2023. At SMP 40, I surveyed from a cul-du-sac on the north edge of the site. At SMP 38 and SMP 39, I walked the northern perimeters, stopping to scan for wildlife with use of binoculars. I recorded all species of vertebrate wildlife I detected, including those whose members flew over the sites or were seen nearby, off the sites. Animals of uncertain species identity were either omitted or, if possible, recorded to the Genus or higher taxonomic level.

Conditions were mostly cloudy still with temperatures of 62-55° F on the 28th and 46-50° F on the 29th. The sites have been previously disked, and at the time of the surveys they were covered by annual grasses and ruderal vegetation (Photos 1—2).

Photos 1–2. Views of SMP 40 (top) and SMP 39 with a flock of Canada goose (bottom), 28-29 November 2023.

I detected 46 species of vertebrate wildlife at or adjacent to the project site, including 10 species with special status (Table 1). I saw Botta's pocket gopher (Photo 3) and California ground squirrel (Photo 4), both species of which are ecological keystone species. I saw loggerhead shrike (Photo 5), Cooper's hawk and American kestrel (Photos 6 and 7), western meadowlark (Photo 8), house finch and killdeer (Photos 9 and 10), black phoebe and white-crowned sparrow (Photos 11 and 12), mourning dove (Photo 13), Say's phoebe and yellow-rumped warbler (Photos 14 and 15), savannah sparrow (Photo 16), and lesser goldfinch and bushtit (Photos 17 and 18), among the other species listed in Table 1. Many of the species actively foraged on the site, including coyote, Cooper's hawk, red-tailed hawk, horned lark, Canada goose and Aleutian cackling goose, killdeer, western meadowlark, house finch and others. I observed Some species in high abundance, including western meadowlark and mourning dove. California ground squirrels occupied all three sites, but were particularly abundant on SMP 40.

Table 1. Species of wildlife I observed during 5.05 hours of survey on 28-29 November 2023.

Common name	*Species name*	Status[1]	Notes	SMP			Just offsite
				38	39	40	
Sierran treefrog	*Pseudacris regilla*		Calling	X	X		
Cackling goose	*Branta hutchinsii*	TWL	Foraging	X	X		X
Canada goose	*Branta canadensis*		Foraging	X	X		X
Mallard	*Anas platyrhynchos*		Flyover	X	X	X	X
Mourning dove	*Zenaida macroura*		Many	X	X	X	X
Killdeer	*Charadrius vociferus*		Foraging	X	X	X	
Short-billed gull	*Larus brachyrhynchus*		Flyover			X	
Ring-billed gull	*Larus delawarensis*		Flyover	X	X	X	
California gull	*Larus californicus*	BCC, TWL	Flyover	X	X	X	
Herring gull	*Larus argentatus*		Flyover			X	
Glaucous-winged gull	*Larus glaucescens*		Flyover		X	X	
Double-crested cormorant	*Nannopterum auritum*	TWL	Flyover		X		X
Great blue heron	*Ardea herodias*		Flyover		X		X
Turkey vulture	*Cathartes aura*	BOP	Foraging		X	X	
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP	SMP 39		X		
Cooper's hawk	*Accipiter cooperii*	TWL, BOP	Perched at airport, foraged project site		X		X
Red-tailed hawk	*Buteo jamaicensis*	BOP		X	X	X	X
Hairy woodpecker	*Dryobates villosus*		Flyover	X			X
Northern flicker	*Colaptes auratus*		SMP 40			X	
American kestrel	*Falco sparverius*	BOP		X	X	X	
Black phoebe	*Sayornis nigricans*			X	X	X	X
Say's phoebe	*Sayornis saya*		SMP 39		X		
Loggerhead shrike	*Lanius ludovicianus*	SSC2	SMP 39		X		
California scrub-jay	*Aphelocoma californica*					X	X
American crow	*Corvus brachyrhynchos*			X	X	X	X
Common raven	*Corvus corax*			X	X	X	X
California horned lark	*Eremophila alpestris actia*	TWL	Foraging			X	
Violet-green swallow	*Tachycineta thalassina*		SMP 40			X	X

Common name	*Species name*	Status[1]	Notes	SMP			Just offsite
				38	39	40	
Bushtit	*Psaltriparus minimus*		Just offsite				X
Northern mockingbird	*Mimus polyglottos*				X	X	X
European starling	*Sturnus vulgaris*	Non-native		X	X	X	X
American pipit	*Anthus rubescens*		Foraging		X		
House finch	*Haemorphous mexicanus*				X	X	X
Lesser goldfinch	*Spinus psaltria*		Just offsite				X
Lawrence's goldfinch	*Spinus lawrencei*	BCC	SMP 40			X	
White-crowned sparrow	*Zonotrichia leucophrys*				X	X	X
Savannah sparrow	*Passerculus sandwichensis*		SMP 38, SMP 39		X		
Lincoln's sparrow	*Melospiza lincolnii*		SMP 38		X		X
California towhee	*Melozone crissalis*				X		X
Western meadowlark	*Sturnella neglecta*		Many	X	X	X	X
Red-winged blackbird	*Agelaius phoeniceus*					X	
Brown-headed cowbird	*Molothrus ater*					X	
Yellow-rumped warbler	*Setophaga coronata*			X	X	X	X
Desert cottontail	*Sylvilagus audubonii*		SMP 38				X
California ground squirrel	*Otospermophilus beecheyi*		Many	X	X	X	X
Coyote	*Canis latrans*		SMP 39		X		
Botta's pocket gopher	*Thomomys bottae*		Burrows		X		X

[1] Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

Photo 3. Botta's pocket gopher mounds on the project site, 29 November 2023.

Photo 4. California ground squirrels on the SMP 40 portion of the project site, 28 November 2023.

Photo 5. Loggerhead shrike on the SMP 39 portion of the project site, 29 November 2023.

Photos 6 and 7. Cooper's hawk (L) and American kestrel (R) at the project site, 29 November 2023.

Photo 8. One of many western meadowlarks foraging on the SMP 39 portion of the project site, 29 November 2023.

Photos 9 and 10. House finches (top) and one of many killdeer (bottom) on the project site, 28-29 November 2023.

Photos 11 and 12. Black phoebe (L) and white-crowned sparrow (R) on the project site, 28-29 November 2023.

Photo 13. One of many mourning doves foraging on the SMP 39 portion of the project site, 29 November 2023.

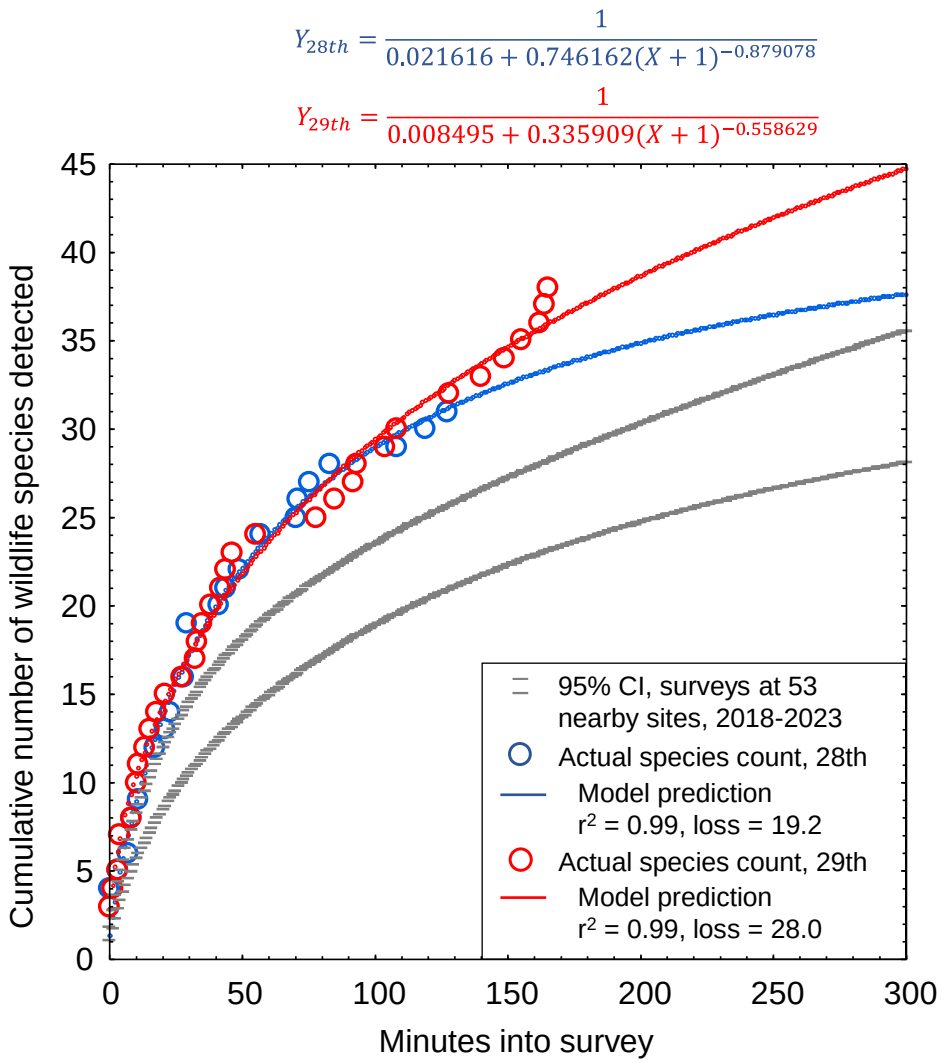
Photos 14 and 15. Say's phoebe (top) and yellow-rumped warbler (bottom) on the project site, 28-29 November 2023.

Photo 16. Savannah sparrow on the SMP 39 portion of the project site, 29 November 2023.

Photos 17 and 18. Lesser goldfinch (L) and bushtit (R) just off the project site, 29 November 2023.

I fit nonlinear regression models to the cumulative numbers of vertebrate species I detected with time into my surveys to predict the number of species that I would have detected with a longer survey or perhaps with additional biologists available to assist. The models are logistic growth models which reach asymptotes that correspond with the maximum numbers of vertebrate wildlife species that could have been detected during each survey. In this case, the models predict 46 and 118 species of vertebrate wildlife were available to be detected on the evening of the 28th and the morning of the 29th, respectively, the difference likely due to the onset of darkness during the evening survey of the 28th. Compared to models fit to data I collected from 18 other sites in the region between 2019 and 2023, the data from this project site exceeds the upper bound of the 95% confidence interval of the rate of accumulated species detections with time into the survey (Figure 1). Importantly, however, the species I detected on November 28-29 composed only a fraction of the species that would occur at the project site over the period of a year or longer. This is because many species are seasonal in their occurrence.

Figure 1. Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on visual-scan surveys on 28-29 November 2023. Note that the relationships would differ if the surveys were based on another method or during another season.



At least a year's worth of surveys would be needed to more accurately report the number of vertebrate species that occur at the project site, but I only have Noriko's one survey. However, by use of an analytical bridge, a modeling effort applied to a large, robust data set from a research site can predict the number of vertebrate wildlife species that likely make use of the site over the longer term. As part of my research, I completed a much larger survey effort across 167 km² of annual grasslands of the Altamont Pass Wind Resource Area, where from 2015 through 2019 I performed 721 1-hour visual-scan surveys, or 721 hours of surveys, at 46 stations. I used binoculars and otherwise the methods were the same as the methods I and other consulting biologists use for surveys at proposed project sites. At each of the 46 survey stations, I tallied new species detected with each sequential survey at that station, and then related the cumulative species detected to the hours (number of surveys, as each survey lasted 1 hour) used to accumulate my counts of species detected. I used combined quadratic and simplex methods of estimation in Statistica to estimate least-squares, best-fit nonlinear models of the number of cumulative species detected regressed on hours of survey (number of surveys) at the station: $\hat{R} = \frac{1}{1/a+b\times(Hours)^c}$, where $\hat{R}$ represented cumulative species

richness detected. The coefficients of determination, r^2, of the models ranged 0.88 to 1.00, with a mean of 0.97 (95% CI: 0.96, 0.98); or in other words, the models were excellent fits to the data.

I projected the predictions of each model to thousands of hours to find predicted asymptotes of wildlife species richness. The mean model-predicted asymptote of species richness was 57 after 11,857 hours of visual-scan surveys among the 46 stations of my research site. I also averaged model predictions of species richness at each incremental increase of number of surveys, i.e., number of hours (Figure 2). On average I would have detected 17.5 species over my first 5.05 hours of surveys at my research site in the Altamont Pass (5.05 hours to match the 5.05 hours I surveyed at the project site), which composed 30.7% of the predicted total number of species I would detect with a much larger survey effort at the research site. Given the example illustrated in Figure 2, the 46 species I detected after my 5.05 hours of survey at the project site likely represented 30.7% of the species to be detected after many more visual-scan surveys over another year or longer. With many more repeat surveys through the year, I would likely detect $^{46}/_{0.307} = 150$ species of vertebrate wildlife at the site. Assuming my ratio of special-status to non-special-status species was to hold through the detections of all 150 predicted species, then continued surveys would eventually detect 33 special-status species of vertebrate wildlife.

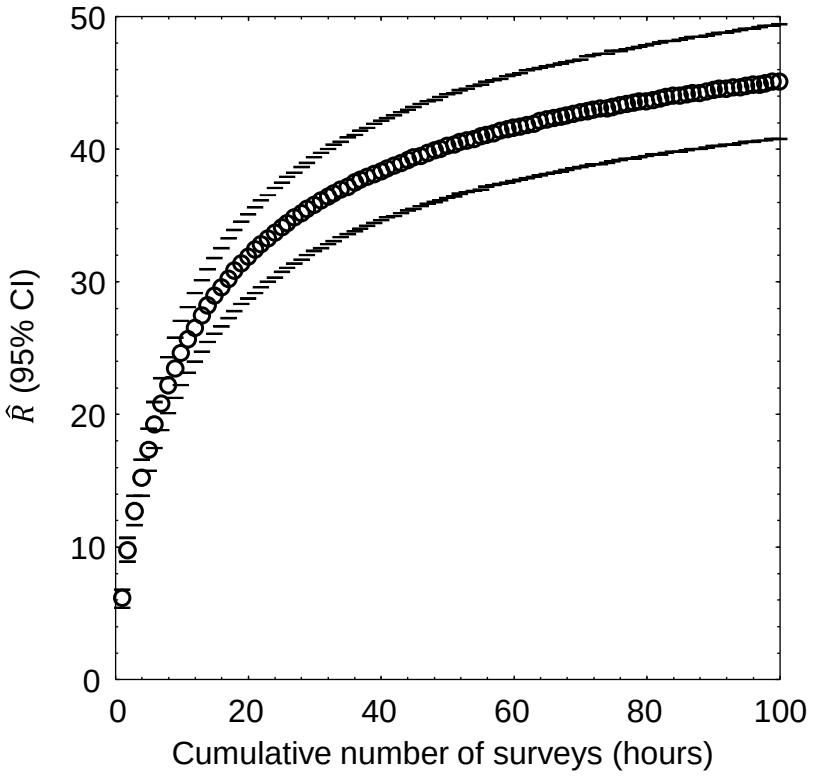


Figure 2. Mean (95% CI) predicted wildlife species richness, $\hat{R}$, as a nonlinear function of hour-long survey increments across 46 visual-scan survey stations across the Altamont Pass Wind Resource Area, Alameda and Contra Costa Counties, 2015–2019. Note that the location of the study is largely irrelevant to the utility of the graph to the interpretation of survey outcomes at the project site. It is the pattern in the data that is relevant, because the pattern is typical of the pattern seen elsewhere.

Because my prediction of 150 species of vertebrate wildlife, including 33 special-status species of vertebrate wildlife, is derived from daytime visual-scan surveys, and would detect few nocturnal mammals such as bats, the true number of species composing the wildlife community of the site must be larger. My reconnaissance surveys should serve

only as a starting point toward characterization of the site's wildlife community, but they certainly cannot alone inform of the inventory of species that use the site. More surveys are needed than my two survey to inventory use of the project site by wildlife. Nevertheless, the large number of species I predict at the project site is indicative of a relatively species-rich wildlife community that warrants a serious survey effort.

EXISTING ENVIRNMENTAL SETTING

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the biological species that use the site, their relative abundances, how they use the site, key ecological relationships, and known and ongoing threats to those species with special status. A reasonably accurate characterization of the environmental setting can provide the basis for determining whether the site holds habitat value to wildlife, as well as a baseline against which to analyze potential project impacts. For these reasons, characterization of the environmental setting, including the project site's regional setting, is one of CEQA's essential analytical steps. Methods to achieve this first step typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases and local experts for documented occurrences of special-status species. In the case of the proposed project, these needed steps have been inadequate.

Environmental Setting informed by Field Surveys

To CEQA's primary objective to disclose potential environmental impacts of a proposed project, the analysis should be informed of which biological species are known to occur at the proposed project site, which special-status species are likely to occur, as well as the limitations of the survey effort directed to the site. Analysts need this information to characterize the environmental setting as a basis for opining on, or predicting, potential project impacts to biological resources.

Herein I discuss several types of surveys, which are common to environmental review, but which are often misunderstood and misapplied. A *reconnaissance survey*, also often referred to as a general biological survey, is intended to (1) detect as many of the species as feasible during the time of the survey, (2) search for and map the locations of approximate boundaries of wetlands and coarse representations of vegetation cover, and (3) assess the likelihood of occurrences of special-status species. The latter objective is often referred to as habitat assessment. CDFW (2018) provides guidelines for reconnaissance surveys directed toward plant species, but there are no guidelines for reconnaissance-level wildlife surveys, other than the expected use of sound scientific methodology. A *protocol-level survey* is a survey guided by a written protocol, usually by a resource agency or professional group of biologists. Such surveys can be for various objectives, but in environmental review they are usually intended for detection surveys. *Detection surveys* are formulated by experts on a particular species to, at reasonable cost, give survey personnel the best chance at detecting members of a species if the species is indeed present. The additional purpose of detection surveys is to support absence determinations when the protocol was followed but the species was nevertheless not detected. Absence determinations made for special-status species are

supportable only if the results of detection surveys were negative, or when the site is outside the species' geographic range or clearly does not provide habitat.

Preconstruction surveys are take-avoidance surveys intended to be completed after reconnaissance surveys and detection surveys and just prior to construction ground-disturbance activities such as clearing and grubbing or grading. For some species, protocols for preconstruction surveys are included in mitigation guidelines. The preconstruction survey is a mitigation measure, and therefore not to be confused with other types of surveys. This type of survey will be discussed in the Mitigation section near the end of my comments.

Monk & Associates (2021) performed a reconnaissance survey of the SMP 39 project site on 5 November 2021 "to record biological resources and to assess the likelihood of resource agency regulated areas occurring on the project site," and "searching all habitats on the site and recording all plant and wildlife species observed," and "examination of the site to determine if there could be potential areas within the project site that would be regulated as waters of the United States and/or State." Monk & Associates (2023) performed two reconnaissance surveys of the SMP 40 project site on 10 June 2019 and 10 September 2021. The objectives of the surveys at SMP 40 were essentially the same as those for the survey of SMP 39. In all three of these surveys, Monk & Associates recorded all the species observed. A wetland delineation was alco completed at SMP 40.

For none of the above surveys was there reporting of what time the surveys began, or how long the surveys lasted. No checklist is shared of habitat elements that the biologists might have used during their survey to later crosscheck against documented habitats of each special-status species. No explanation is provided of whether or how animal behavior data or other evidence contributed to the biologist's assessment of the site for its importance to animal movement. It is therefore difficult to assess survey outcomes relative to survey effort and methods.

Monk & Associates (2021) detected 14 species of vertebrate wildlife on SMP 39, and Monk & Associates (2023) detected 22 species of vertebrate wildlife on SMP 40. In comparison, and even though I was unable to access either of the project sites, I detected 34 species in only 1.83 hours at SMP 39, and 29 species in only 2.22 hours at SMP 40. I also detected twice the number of special-status species at SMP 39 and 1.5 times the number of special-status species at SMP 40. Based on my surveys of the project sites, the existing environmental setting of each appears substantially different from the setting characterized by Monk & Associates (2021, 2023). Considering the differences between what Monk & Associates and what I found, I suggest that Monk & Associates must have either been distracted by other too many survey objectives, or lacked the skill needed to perform the surveys. The results of the Monk and Associates (2021, 2023) surveys have been misinterpreted in the reports, resulting in inaccurate characterizations of the existing environmental settings of SMP 39 and SMP 40.

Combining my survey results with those of Monk & Associates (2021, 2023), 38 species of vertebrate wildlife have been detected at SMP 39, and 44 species have been detected

at SMP 40. These combined results increase the documented number of species at SMP 39 by nearly 3-fold and they double the number of species at SMP 40. In other words, the combined survey outcomes support my modeling predictions of much larger numbers of species of wildlife making use of the project sites than can be demonstrated by one or two reconnaissance surveys. My modeling predicts at least 150 species of vertebrate wildlife make use of the two sites, and this prediction was based solely on diurnal visual-scan surveys, and not on live-trapping for small mammals and nocturnal surveys for nocturnally active animals. The wildlife communities of SMP 39 and SMP 40 are much richer than portrayed in the DEIR.

The DEIR (page 4.3-25) reports that "western burrowing owls have not been observed within SMP 39 or SMP 40." This is factually incorrect, as CNDDB includes a record of burrowing owl occurrence on SMP 39 (Monk & Associates 2023: Figure 4). Even if this reporting was correct, it would still qualify as pseudoscientific. The appropriate surveys for detecting burrowing owls are detailed in the survey guidelines of CDFW (2012). Lack of detections of burrowing owls during reconnaissance surveys would be meaningful only after completion of many reconnaissance surveys at the appropriate time of year and by qualified biologists. Considering that ground squirrels occur in abundance on SMP 39 and SMP 40, and considering that one of California's most significant populations of burrowing owls occurs within the nearby Altamont Pass (Smallwood et al. 2013), and considering that the appropriate detection surveys have not been completed at SMP 39 and SMP 40, it would be prudent to assume that burrowing owls occur on the project sites.

Regarding tricolored blackbird, the DEIR (page 4.3-26) reports that "the species has not been observed near SMP 39 in nearly 40 years." This is factually incorrect, as eBird includes a 2003 record of tricolored blackbird occurrence only 300 m north of SMP 39. The DEIR also reports that tricolored blackbird would not occur on SMP 9 because "aquatic habitat does not exist within SMP 39." But this is also factually incorrect. I have many times recorded tricolored blackbird occurrences on grasslands of the Altamont Pass far from bodies of water (Photos 19 and 20). Grassland environments is where tricolored blackbirds do most of their foraging in Alameda County, and it is where they sometimes nest within the Altamont Pass (Photo 20).

The DEIR reports that loggerhead shrikes do not occur on SMP 39. But again, the DEIR is factually inaccurate. I observed a loggerhead shrike on SMP 39 (Photo 21), which as it turned out, was near where a loggerhead shrike sighting was also reported to eBird in 2018. Loggerhead shrike does occur on SMP 39, as well as on SMP 40.

The DEIR reports that SMP 39 and SMP 40 contains potential habitat of raptors. However, the word "potential" insinuates uncertainty remains on the question of whether the sites provide raptor habitat. Of course, they do. Those portions of the environment used by raptors are considered raptor habitat. Between my surveys and those of Monk & Associates, and including CNDDB and eBird records, the following raptors have been seen on SMP 39 and SMP 40: turkey vulture, northern harrier, white-tailed kite, red-tailed hawk, ferruginous hawk, Cooper's hawk, American kestrel, merlin,

and burrowing owl. There should be no ambiguity around the question of whether raptor habitat occurs on SMP 39 and SMP 40; raptor habitat is present.

Photos 19 and 20. Top, tricolored blackbirds forage on grassland far from aquatic environments, and bottom, they breed on rapeseed and thistle in the Altamont Pass Wind Resource Area.

Photo 21. Loggerhead shrike on the SMP 39 portion of the project site, 29 November 2023.

Reconnaissance surveys for wildlife are not designed to detect special-status species. Special-status species can be detected during such surveys, as has been the case for 10 special-status species at the project site, but these surveys are not formulated to detect them, nor are there minimum standards to be met in these surveys to support absence determinations. For the latter purpose, protocol-level detection surveys have been formulated by species experts. Monk & Associates (2021, 2023) did not perform any detection surveys. Based on Monk & Associates (2021, 2023), the DEIR's characterization of the existing environmental setting is therefore incomplete and inaccurate.

The same is true for special-status species of plants. According to the DEIR (page 4.3-25), "special-status plants have not been observed during several surveys of the project sites conducted during various months over the years." However, this reporting is misleading, because only one of the several surveys was conducted during the plant blooming season. Monk and Associates (2021, 2023) did not meet the minimum standards of CDFW's (2018) plant survey guidelines.

Environmental Setting informed by Desktop Review

The purpose of literature and database review and of consulting with local experts is to inform the field survey, and to augment interpretation of its outcome. Analysts need this information to identify which species are known to have occurred at or near the project site, and to identify which other special-status species could conceivably occur at the site due to geographic range overlap and migration flight paths.

Monk & Associates (2021) did not reportedly review eBird (https://eBird.org) or iNaturalist (https://www.inaturalist.org) for documented occurrence records at or near the project site. Instead, Monk & Associates (2021, 2023) queried the California Natural Diversity Data Base (CNDDB) for documented occurrences of special-status species within the three miles of the project sites. By taking this approach, Monk & Associates (2021, 2023) and the DEIR screen out many special-status species from further consideration in the characterization of the wildlife community as part of the existing environmental setting. CNDDB is not designed to support absence determinations or to screen out species from characterization of a site's wildlife community. As noted by CNDDB, "*The CNDDB is a positive sighting database. It does not predict where something may be found. We map occurrences only where we have documentation that the species was found at the site. There are many areas of the state where no surveys have been conducted and therefore there is nothing on the map. That does not mean that there are no special status species present*." Monk & Associates (2021, 2023) and the DEIR misuse CNDDB.

According to Monk & Associates (2021:6), "No special-status animal records have ever been mapped on the project site." The word "ever" adds emphasis to the finding. However, by implication, Monk & Associates (2021) misrepresents CNDDB as a database with uniform representation of California properties, which is far from the case. CNDDB relies entirely on volunteer reporting from biologists who were allowed access to whatever properties they report from. Many properties have never been surveyed by biologists. Many properties have been surveyed, but the survey outcomes never reported to CNDDB. Many properties have been surveyed multiple times, but not all survey outcomes reported to CNDDB. Furthermore, CNDDB is interested only in the findings of special-status species, which means that species more recently assigned special status will have been reported many fewer times to CNDDB than were species assigned special status since the inception of CNDDB. The lack of many CNDDB records for species recently assigned special status had nothing to do with whether the species' geographic ranges overlapped the project site, but rather more to do with the brief time for records to have accumulated since the species were assigned special status. And because negative findings are not reported to CNDDB, CNDDB cannot provide the basis for estimating occurrence likelihoods, either.

In my assessment based on database reviews and site visits, 128 special-status species of wildlife are known to occur near enough to the site (SMP 38, SMP 39, SMP 40) to warrant analysis of occurrence potential (Table 2). Of these 128 species, 19 (15%) were recorded on the project site, and another 35 (27%) species have been documented within 1.5 miles of the site ('Very close'), another 13 (10%) within 1.5 and 4 miles

('Nearby'), and another 57 (45%) within 4 to 30 miles ('In region'). More than half (52%) of the species in Table 2 have been reportedly seen within 4 miles of the project site. The site therefore supports multiple special-status species of wildlife and carries the potential for supporting many more special-status species of wildlife based on proximity of recorded occurrences. The site is far richer in special-status species than is characterized in the DEIR.

Whereas Monk & Associates (2021, 2023) reportedly queried CNDDB for occurrence records within three miles of the project sites, the DEIR analyzes the occurrence likelihoods of only 6 (<5%) of the species in Table 2. That only 6 special-status species were identified from occurrence records within 3 miles strains credulity. As noted above, using eBird and iNaturalist, I found records of 54 special-status species of wildlife within only 1.5 miles of the project sites, and 67 within 4 miles of the sites.

Of the 6 species included in Monk & Associates (2021, 2023) analyses of occurrence likelihoods, the DEIR concludes that 4 have no chance of occurrence, 1 has low to no chance, and 1 has low to moderate chance of occurrence. Except for species whose habitat is compellingly absent from the site, absence determinations are inappropriate based on the evidence gathered by Monk & Associates (2021, 2023). Absence determinations are supportable only after species-specific protocol-level detection surveys have been completed to the standards of the protocols, and the species were nevertheless not detected. No such surveys have been completed. It is inappropriate to conclude that a species is absent simply by looking at a site, and it is especially inappropriate to do so for 125 species of wildlife. Important findings of Monk & Associates (2021, 2023) and the DEIR are not supportable.

Of the special-status species that Monk & Associates (2021, 2023)) claims to be absent from one or both of the project sites, two – burrowing owl and loggerhead shrike – have been seen where they were reported to be absent. Occurrence records of another 2 supposedly absent special-status species have been reported within only 1.5 miles of the site, and another has been reported within 1.5 and 4 miles of the project site. Important findings of Monk & Associates (2021, 2023) and the DEIR are not supportable.

Of the 122 special-status species in Table 2, but which the DEIR does not analyze for occurrence potential, some are unlikely to occur, whereas many *are* likely to occur. With ground squirrels known to be present on SMP 39 and SMP 40, there is reason to expect the occurrences of American badger, ferruginous hawk, bald eagle and golden eagle. I regularly observed these species in the Altamont Pass Wind Resource Areas while I performed various studies there from 1999 through 2019. Golden eagles, I continue to record both in the Altamont Pass and over and on the project sites (Figure 3). Of the 45 golden eagles that Douglas Bell captured and fit with GPS telemetry backpacks since 2013, 11 have flown to or perched in the areas of the project sites (Figure 3).

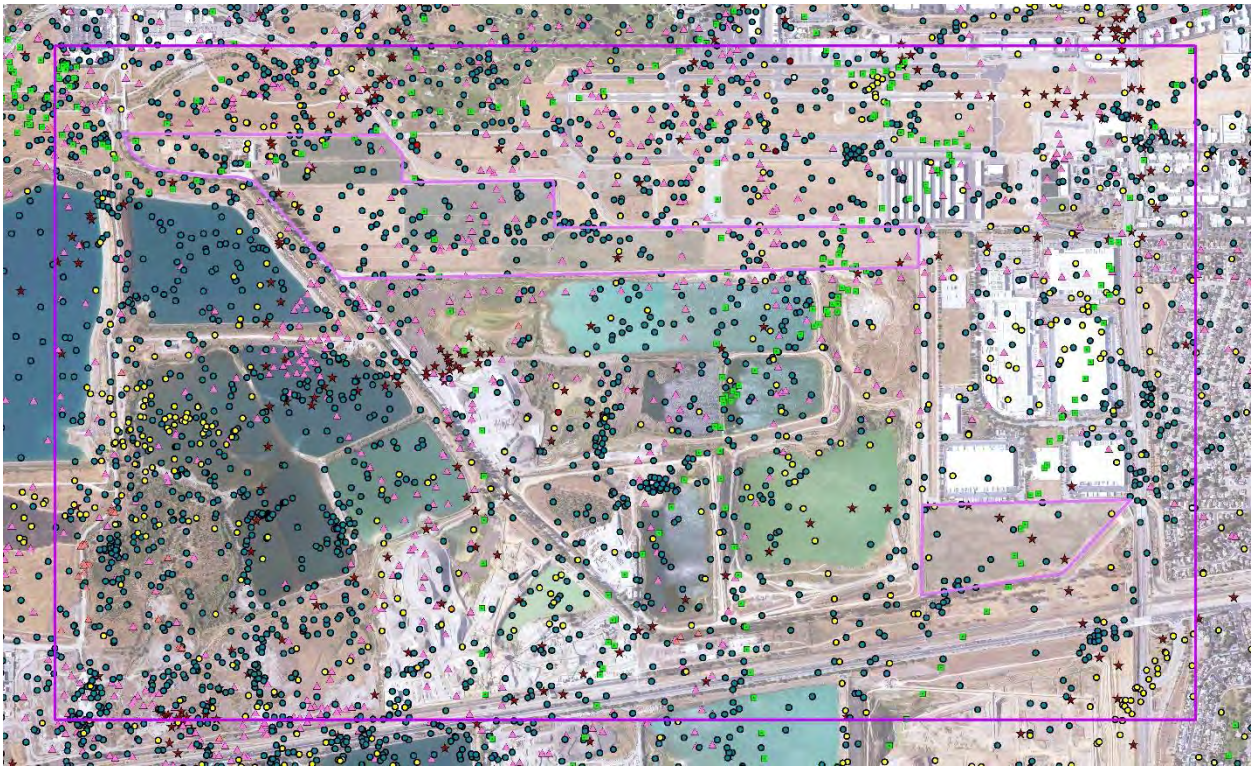


Figure 3. GPS telemetry positions (N = 3,478) of 11 golden eagles from 2014 through 2023, each distinct color-symbol combination representative of one golden eagle. Many of the positions are on SMP 38, SMP 39, and SMP 40. Many of the positions are of flying golden eagles, and some are of perched golden eagles.

Considering the inaccuracies of the DEIR's characterization of the existing environmental setting, the reasonable course of action would be to withdraw the current draft EUIR and prepare a new one to appropriately characterize the existing environmental setting. The public needs to understand the nature of the sensitive biological assets that exist on the project sites.

Table 2. Occurrence likelihoods of special-status bird species at or near the proposed project site, according to eBird/iNaturalist records (https://eBird.org, https://www.inaturalist.org) and on-site survey findings, where 'Very close' indicates within 1.5 miles of the site, "nearby" indicates within 1.5 and 4 miles, and "in region" indicates within 4 and 30 miles, and 'in range' means the species' geographic range overlaps the site. Entries in bold font indicate those species I detected during my reconnaissance surveys.

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Longhorn fairy shrimp	*Branchinecta longiantenna*	FE		In region
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT		In region
Vernal pool tadpole shrimp	*Lepidurus packardi*	FE		In region
Monarch	*Danaus plexippus*	FC		Very close
Crotch's bumble bee	*Bombus crotchii*	CCE		In region
California tiger salamander	*Ambystoma californiense*	FT, CT, WL	None	Nearby
Foothill yellow-legged frog	*Rana boylii*	CT, SSC		In region
California red-legged frog	*Rana draytonii*	FT, SSC	None	Nearby
Western pond turtle	*Emys marmorata*	SSC	None	Very close
Blainville's horned lizard	*Phrynosoma blainvillii*	SSC		In region
Northern California legless lizard	*Anniella pulchra*	SSC		In region
California glossy snake	*Arizona elegans occidentalis*	SSC		In region
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	SSC		In region
Alameda whipsnake	*Coluber lateralis euryxanthus*	FT, CT		In region
Brant	*Branta bernicla*	SSC2		In region
Cackling goose (Aleutian)	*Branta hutchinsii leucopareia*	WL		On site
Redhead	*Aythya americana*	SSC2		Very close
Harlequin duck	*Histrionicus histrionicus*	SSC2		In region
Barrow's goldeneye	*Bucephala islandica*	SSC		Very close
Western grebe	*Aechmophorus occidentalis*	BCC		Very close
Clark's grebe	*Aechmophorus clarkii*	BCC		Very close
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT, CE, BCC		In region
Black swift	*Cypseloides niger*	SSC3, BCC		In region
Vaux's swift	*Chaetura vauxi*	SSC2, BCC		Very close
Costa's hummingbird	*Calypte costae*	BCC		In region
Rufous hummingbird	*Selasphorus rufus*	BCC		Very close

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Allen's hummingbird	*Selasphorus sasin*	BCC		Very close
Ridgway's rail (San Francisco Bay)	*Rallus obsoletus obsoletus*			In region
Yellow rail				In region
Lesser sandhill crane	*Antigone canadensis canadensis*	SSC3		In region
Greater sandhill crane	*Antigone canadensis tabida*	CT, FP		In region
American avocet[4]	*Recurvirostra americana*	BCC		Very close
Mountain plover	*Charadrius montanus*	SSC2, BCC		In region
Snowy plover	*Charadrius nivosus*	BCC		In region
Western snowy plover	*Charadrius nivosus nivosus*	FT, SSC, BCC		In region
Whimbrel[4]	*Numenius phaeopus*	BCC		In region
Long-billed curlew	*Numenius americanus*	WL		Very close
Marbled godwit	*Limosa fedoa*	BCC		Very close
Red knot (Pacific)	*Calidris canutus*	BCC		Very close
Short-billed dowitcher	*Limnodromus griseus*	BCC		Nearby
Willet	*Tringa semipalmata*	BCC		Very close
Laughing gull	*Leucophaeus atricilla*	WL		In region
Heermann's gull	*Larus heermanni*	BCC		In region
Western gull	*Larus occidentalis*	BCC		Very close
California gull	*Larus californicus*	BCC, WL		On site
California least tern	*Sternula antillarum browni*	FE, CE, FP		In region
Black tern	*Chlidonias niger*	SSC2, BCC		In region
Elegant tern	*Thalasseus elegans*	BCC, WL		Nearby
Black skimmer	*Rynchops niger*	BCC, SSC3		In region
Common loon	*Gavia immer*	SSC		Very close
Brandt's cormorant	*Urile penicillatus*	BCC		Nearby
Double-crested cormorant	*Phalacrocorax auritus*	WL		On site
American white pelican	*Pelacanus erythrorhynchos*	SSC1, BCC		Very close
California brown pelican	*Pelecanus occidentalis californicus*	FP		In region
Least bittern	*Ixobrychus exilis*	SSC2		In region

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
White-faced ibis	*Plegadis chihi*	WL		Nearby
Turkey vulture	*Cathartes aura*	BOP		On site
Osprey	*Pandion haliaetus*	WL, BOP		Very close
White-tailed kite	*Elanus luecurus*	CFP, BOP		On site
Golden eagle	*Aquila chrysaetos*	BGEPA, CFP, BOP, WL		On site
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP		On site
Sharp-shinned hawk	*Accipiter striatus*	WL, BOP		Very close
Cooper's hawk	*Accipiter cooperii*	WL, BOP		On site
American goshawk	*Accipiter atricapillus*	SSC2, BOP		In region
Bald eagle	*Haliaeetus leucocephalus*	CE, BGEPA		Very close
Red-shouldered hawk	*Buteo lineatus*	BOP		Very close
Swainson's hawk	*Buteo swainsoni*	CT, BOP		Very close
Red-tailed hawk	*Buteo jamaicensis*	BOP		On site
Ferruginous hawk	*Buteo regalis*	WL, BOP		On site
Rough-legged hawk	*Buteo lagopus*	BOP		Nearby
Barn owl	*Tyto alba*	BOP		Very close
Western screech-owl	*Megascops kennicotti*	BOP		Very close
Great horned owl	*Bubo virginianus*	BOP		Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2, BOP	Not likely	On site
Long-eared owl	*Asio otus*	BCC, SSC3, BOP		In region
Short-eared owl	*Asia flammeus*	BCC, SSC3, BOP		In region
Lewis's woodpecker	*Melanerpes lewis*	BCC		Very close
Nuttall's woodpecker	*Picoides nuttallii*	BCC		On site
American kestrel	*Falco sparverius*	BOP		On site
Merlin	*Falco columbarius*	WL, BOP		On site
Peregrine falcon	*Falco peregrinus*	BOP		Very close
Prairie falcon	*Falco mexicanus*	WL, BOP		Very close
Olive-sided flycatcher	*Contopus cooperi*	BCC, SSC2		Very close
Willow flycatcher	*Empidonax traillii*	CE		Very close

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Vermilion flycatcher	*Pyrocephalus rubinus*	SSC2		Nearby
Loggerhead shrike	*Lanius ludovicianus*	SSC2	Low to moderate	On site
Yellow-billed magpie	*Pica nuttalli*	BCC		Very close
Oak titmouse	*Baeolophus inornatus*	BCC		On site
California horned lark	*Eremophila alpestris actia*	WL		On site
Bank swallow	*Riparia riparia*	CT		In region
Purple martin	*Progne subis*	SSC2		In region
Wrentit	*Chamaea fasciata*	BCC		Very close
California thrasher	*Toxostoma redivivum*	BCC		Very close
Cassin's finch	*Haemorhous cassinii*	BCC		In region
Lawrence's goldfinch	*Spinus lawrencei*	BCC		On site
Grasshopper sparrow	*Ammodramus savannarum*	SSC2		Nearby
Alameda song sparrow	*Melospiza melodia pusillula*	BCC, SSC2		In region
Black-chinned sparrow	*Spizella atrogularis*	BCC		In region
Gray-headed junco	*Junco hyemalis caniceps*	WL		In region
Bell's sparrow	*Amphispiza b. belli*	WL		In region
Yellow-breasted chat	*Icteria virens*	SSC3		Nearby
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3		Nearby
Bullock's oriole	*Icterus bullockii*	BCC		On site
Tricolored blackbird	*Agelaius tricolor*	CT, BCC, SSC1	Low to none	Very close
Lucy's warbler	*Leiothlypis luciae*	SSC3, BCC		In region
Virginia's warbler	*Leiothlypis virginiae*	WL, BCC		In region
Yellow warbler	*Setophaga petechia*	SSC2		Very close
Summer tanager	*Piranga rubra*	SSC1		In region
Pallid bat	*Antrozous pallidus*	SSC, WBWG:H		In region
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG:H		In region
Canyon bat	*Parastrellus hesperus*	WBWG:L		In region
Big brown bat	*Episticus fuscus*	WBWG:L		In region
Silver-haired bat	*Lasionycteris noctivagans*	WBWG:M		In region
Western red bat	*Lasiurus blossevillii*	SSC, WBWG:H		In region

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Hoary bat	*Lasiurus cinereus*	WBWG:M		In region
Western small-footed myotis	*Myotis cililabrum*	WBWG:M		In range
Miller's myotis	*Myotis evotis*	WBWG:M		In region
Little brown myotis	*Myotis lucifugus*	WBWG:M		In region
Fringed myotis	*Myotis thysanodes*	WBWG:H		In range
Long-legged myotis	*Myotis volans*	WBWG:H		In range
Yuma myotis	*Myotis yumanensis*	WBWG:LM		In region
California myotis	*Myotis californicus*	WBWG:L		In region
Western mastiff bat	*Eumops perotis*	SSC, WBWG:H		In range
Mexican free-tailed bat	*Tadarida brasiliensis*	WBWG:L		In region
San Francisco dusky-footed woodrat	*Neotoma fuscipes annectens*	SSC		In region
Ringtail	*Bassariscus astutus*	CFP		In region
American badger	*Taxidea taxus*	SSC		Nearby
Mountain lion	*Puma concolor*	CCT		Nearby

[1] Listed as FC, FT or FE = federal candidate, threatened or endangered, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, CCT, CCE, CT or CE = California Candidate threatened or endangered, or California threatened or endangered, CFP = California Fully Protected (California Fish and Game Code 3511), SSC = California Species of Special Concern, SSC1, SSC2 and SSC3 = Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), WL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (CFG Code 3503.5), and WBWG = Western Bat Working Group with priority rankings, of low (L), moderate (M), and high (H).

POTENTIAL BIOLOGICAL IMPACTS

An impacts analysis should consider whether and how a proposed project would affect members of a species, larger demographic units of the species, the whole of a species, and ecological communities. The accuracy of this analysis depends on an accurate characterization of the existing environmental setting. In the case of the proposed project, the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, interference with wildlife movement, and wildlife-automobile collision mortality.

HABITAT LOSS

Habitat loss results in a reduced productive capacity of affected wildlife species, but the DEIR offers no prediction of this lost capacity for any of the wildlife species potentially affected. In the case of birds, two methods exist for estimating the loss of productive capacity that would be caused by the project. One method would involve surveys to count the number of bird nests and chicks produced. The alternative method would be to infer productive capacity from estimates of total nest density elsewhere.

Because the project is located within an area that has undergone severe habitat fragmentation, the habitat that remains in fragmented patches probably no longer supports its original productive capacity of wildlife (Smallwood 2015, Smallwood and Smallwood 2023). However, several studies have estimated total avian nest density at locations that had likewise been highly fragmented. Two study sites in grassland/wetland/woodland complexes within agricultural matrices had total bird nesting densities of 32.8 and 35.8 nests per acre (Young 1948, Yahner 1982) for an average 34.3 nests per acre. Assuming total nest density at the project site is about a third of that of the above-cited study sites due to the annual disking of the project site's interior areas, I predict SMP 38 (111.7 acres), SMP 39 (51.9 acres) and SMP 40 (41 acres) support 11.4 bird nests/acre/year. Based on this assumption, the combined projects, SMP 39 and SMP 40, on 92.9 acres would eliminate 1,059 nest sites, and assuming SMP 38 is also later developed, then the combined projects, SMP 38, SMP 39, and SMP 40, on 204.6 would eliminate 2,332 nest sites.

The loss of 1059 to 2,332 nest sites would easily qualify as a significant project impact that has not been quantitatively addressed in the DEIR. But the impact would not end with the immediate loss of nest sites as nest substrate is removed and foraging grounds graded in preparation for impervious surfaces. The reproductive capacity of the site would be lost. The average number of fledglings per nest in Young's (1948) study was 2.9. Assuming Young's (1948) study site typifies bird productivity, the project would prevent the production of 3,071 to 6,763 fledglings per year, depending on whether SMP 38 is developed. Assuming an average bird generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from an equation in Smallwood (2022): {(nests/year × chicks/nest × number of years) + (2 adults/nest × nests/year) × (number of years ÷ years/generation)} ÷ (number of years) = 3,495 to 7,696 birds per year denied to California, depending on whether SMP 38 is developed.

These losses of birds from California would be substantial, nearly equal to the annual loss of birds caused by wind turbine collision mortality in the nearby Altamont Pass Wind Resource Area (Adams Broadwell Joseph & Cardozo 8 January 2021 letter to Alameda County Planning Department regarding Comments on the Draft Subsequent Environmental Impact Report for the Mulqueeney Ranch Wind Repowering Project (SCH No. 2010082063), CUP Application No. PLN2019-00226). These losses would be highly significant.

INTERFERENCE WITH WILDLIFE MOVEMENT

One of CEQA's principal concerns regarding potential project impacts is whether a proposed project would interfere with wildlife movement in the region. Unfortunately, the DEIR's analysis of whether the project would interfere with wildlife movement in the region is flawed and misleading. According to the DEIR, "The project area does not fall within an Essential Habitat Connectivity area mapped by the CDFW." However, at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18486, the California Essential Habitat Connectivity Project specifically points out that it is not: "A California Department of Fish and Game or US Fish and Wildlife Service response to potential impacts to a habitat or species from a project subject to the California Environmental Quality Act (CEQA)," nor "Fine scale, with every important piece of habitat identified" nor ""Essential", meaning the only places of importance" nor "A solution by itself for how to provide necessary linkages for any given species of plant or animal... Linkage designs will vary depending on focal species chosen and the goal of providing connected habitat for a chosen species might be met several different ways" nor "The final word on connectivity for California." With analytical grid cells of 2,000 acres, the spatial grain of the California Essential Habitat Connectivity Project is much too coarse for the conclusion the DEIR draws from it.

The next flaw in the DEIR is in the argument that SMP 39 is cut off from open areas by well-trafficked roads, the airport, the gravel quarries, and therefore cannot function as a wildlife movement corridor. The same argument is made for SMP 40. On this point, the DEIR merely speculates, and offers no supporting evidence to its assertion. Monk & Associates (2021, 2023) report no survey methodology designed to determine whether wildlife rely on the site for movement in the region. They implemented no sampling regime nor a program of observation to record wildlife movement patterns. They failed to quantitatively or qualitatively analyze movement patterns of observed wildlife. Based on what is reported, Monk & Associates (2021, 2023) did not record or measure wildlife movement in any way. The conclusions of the DEIR regarding wildlife movement on the project site are speculative and conclusory.

On the other hand, the coyote I saw on site got there somehow, and so did the ground squirrels and pocket gophers, and so did all of the birds I saw on and over SMP 39. I observed hundreds if not thousands of gulls of multiple species flying in both easterly and westerly directions across SMP 38, SMP 39, and SMP 40. I observed Canada geese and Aleutian cackling geese flying to and from the quarry ponds and the project sites to forage. I saw a Cooper's hawk fly from the airport to SMP 39 to forage, crossing the well-trafficked road in about 2 seconds of flight time. Figure 3 illustrates that our telemetered

golden eagles from the Altamont Pass make frequent visits to the project site. That thousands of our golden eagle telemetry positions appear in the project area is consistent with the pattern that my co-investigators and I have noticed about golden eagle movement across California and beyond to other states and border nations, and that is that golden eagles carefully select open spaces as parts of their travel routes. The project area is important to golden eagle movement in the region, just as it is important to the 10 special-status species I observed on the project site, and to the 19 special-status species so far documented on the project site. Th evidence is overwhelming that the project site is important to wildlife movement in the region. Losing the open space of this site would be devastating to many species of wildlife, including to golden eagle.

Furthermore, whether the site includes or is within a wildlife movement corridor is not the only consideration when it comes to the standard CEQA Checklist question of whether the project would interfere with wildlife movement in the region. The primary phrase of the CEQA standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, a site such as the project site is critically important for wildlife movement because it composes an increasingly diminishing area of open space within a growing expanse of anthropogenic uses, forcing more species of volant wildlife to use the site for stopover and staging during migration, dispersal, and home range patrol (Warnock 2010, Taylor et al. 2011, Runge et al. 2014). The project, due to its elimination of at least 92.9 acres of open space, and more realistically 204.6 acres of open space, and due to its insertion of multiple new buildings into the aerospace currently used by birds, bats and butterflies. would cut wildlife off from one of the last remaining stopover and staging opportunities in the region, forcing volant wildlife to travel even farther between remaining stopover sites. This impact would be significant, and as the project is currently proposed, it would be unmitigated.

TRAFFIC IMPACTS TO WILDLIFE

Project-generated traffic would endanger wildlife that must, for various reasons, cross roads used by the project's traffic to get to and from the project site (Photos 22—26), including along roads far from the project footprint. Vehicle collisions have accounted for the deaths of many thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

The nearest study of traffic-caused wildlife mortality was performed only 11 miles away, along a 2.5-mile stretch of Vasco Road in Contra Costa County, California. Fatality searches in this study found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needs to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality

searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study I completed next to Vasco Road concurrent to the Mendelsohn et al. study (Brown et al. 2016). Brown et al.'s (2016) adjustment factors for carcass persistence resembled those of Santos et al. (2011), which were derived from carcasses placed along roads. Applying searcher detection rates from Brown et al. (2016), the adjusted total number of fatalities was estimated at 12,187 animals killed by traffic on the reach of road that was studied. This fatality number over 1.25 years and 2.5 miles of road translates to 3,900 wild animals per mile per year. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic generated by the project site would similarly result in local impacts on wildlife.

Photo 22. A Gambel's quail dashes across a road on *3 April 2021. Such road crossings are usually successful, but too often prove fatal to the animal. Photo by Noriko Smallwood*.

Photo 23. California ground squirrel in the middle of an eastern Alameda County road on 13 March 2014.

Photo 24. Western Pacific rattlesnake on an eastern Alameda County road, 23 August 2011. Photo by Shawn Smallwood.

Photo 25. Mourning dove killed by vehicle on a California road. Photo by Noriko Smallwood, 21 June 2020.

Photo 26 Raccoon killed on Road 31 just east of Highway 505 in Solano County. Photo taken on 10 November 2018.

For wildlife vulnerable to front-end collisions and crushing under tires, road mortality can be predicted from the study of Mendelsohn et al. (2009) as a basis, although it would be helpful to have the availability of more studies like that of Mendelsohn et al. (2009) at additional locations. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,900 animals killed per mile along a county road in Contra Costa County. Two percent of the estimated number of fatalities were birds, and the balance was composed of 34% mammals (many mice and pocket mice, but also ground squirrels, desert cottontails, striped skunks, American badgers, raccoons, and others), 52.3% amphibians (large numbers of California tiger salamanders and California red-legged frogs, but also Sierran treefrogs, western toads, arboreal salamanders, slender salamanders and others), and 11.7% reptiles (many western fence lizards, but also skinks, alligator lizards, and snakes of various species). VMT is useful for predicting wildlife mortality because I was able to quantify miles traveled along the studied reach of Vasco Road during the time period of the Mendelsohn et al. (2009), hence enabling a

rate of fatalities per VMT that can be projected to other sites, assuming similar collision fatality rates.

From October 2016 through December 2019, I maintained my own database of wildlife mortality I encountered on Vasco Road between Marsh Creek Road and Livermore, which encompassed the wildlife mortality study site of Mendelsohn et al. (2009). Table 3 includes the wildlife I found as fatalities, and it compares my crudely calculated ratio of observed fatalities per mile. From Table 3, it is apparent that mortality along the reach of road studied by Mendelsohn et al. (2009) was relatively low compared to the rest of Vasco Road: $^{19.178}/_{13.200} = 5{,}667$ fatalities per mile predicted for the 14.1 miles of Vasco Road that were not studies by Mendelsohn et al. (2009).

Table 3. Fatalities I found along Vasco Road from October 2016 though December 2019, and along 14.1 miles of road that was not studied by Mendelsohn et al. (2009) and 2.5 miles that were studied.

		Observed fatalities		Observed fatalities/mile	
Common name	Scientific name	14.1 miles offsite	2.5- mile study site	14.1 miles offsite	2.5-mile study site
Alligator lizard	*Elgaria multicarinata*	1		0.068	0.000
American badger	*Taxidea taxus*	3	2	0.205	0.800
American crow	*Corvus brachyrhynchos*	2		0.137	0.000
Barn owl	*Tyto alba*	21	2	1.438	0.800
Bird (Scrub-jay sized)		1		0.068	0.000
Blackbird	*Agelaius*	2		0.137	0.000
Black-tailed jackrabbit	*Lepus californicus*	2		0.137	0.000
Bobcat	*Felis rufus*	2		0.137	0.000
Buffelhead	*Bucephala albeola*	1		0.068	0.000
California kingsnake	*Lampropeltis getula californiae*		1	0.000	0.400
Common poorwill	*Phalaenoptilus nuttallii*	1		0.068	0.000
Coyote	*Canis latrans*	29	2	1.986	0.800
Desert cottontail	*Sylvilagus audubonii*	66	5	4.521	2.000
Gopher snake	*Pituophis c. catenifer*	15	2	1.027	0.800
Ground squirrel	*Otospermophilus beecheyi*	23	3	1.575	1.200
Gull	*Laridae*	1	1	0.068	0.400
Helmeted guineefowl	*Numida meleagris*	3		0.205	0.000
House cat	*Felis catus*	1		0.068	0.000
Kangaroo rat	*Dipodomys*	1		0.068	0.000
Large white bird		1		0.068	0.000
medium-sized bird			1	0.000	0.400

Common name	Scientific name	Observed fatalities		Observed fatalities/mile	
		14.1 miles offsite	2.5- mile study site	14.1 miles offsite	2.5-mile study site
medium-sized mammal		2		0.137	0.000
Mule deer	*Odocoileus hemionus*	5		0.342	0.000
Muskrat	*Ondatra zibethicus*	1		0.068	0.000
Northern harrier	*Circus hudsonicus*	1		0.068	0.000
Osprey	*Pandion haliaetus*	1		0.068	0.000
Pocket gopher	*Thomomys bottae*	1		0.068	0.000
Raccoon	*Procyon lotor*	25	5	1.712	2.000
Western Pacific rattlesnake	*Crotalus oreganus*	2		0.137	0.000
Red fox	*Vulpes vulpes*	1		0.068	0.000
Red-tailed hawk	*Buteo jamaicensis*	5		0.342	0.000
Red-winged blackbird	*Agelaius phoenecius*	1		0.068	0.000
Rock pigeon	*Columba livea*	1		0.068	0.000
Short-eared owl	*Asio flammeus*	1		0.068	0.000
Snake		1		0.068	0.000
Striped skunk	*Mephitis mephitis*	41	9	2.808	3.600
Turkey vulture	*Cathartes aura*	1		0.068	0.000
Virginia opossum	*Didelphis virginiana*	7		0.479	0.000
Western meadowlark	*Sturnella neglecta*	1		0.068	0.000
Wild turkey	*Meleagris gallopavo*	6		0.411	0.000
Total		280	33	19.178	13.200

Predicting project-generated traffic impacts to wildlife

The DEIR predicts the project would generate 8,622,395 annual VMT. During the Mendelsohn et al. (2009) study, 19,500 cars traveled Vasco Road daily, so the vehicle miles that contributed to my estimate of non-volant fatalities was 19,500 cars and trucks × 2.5 miles × 365 days/year × 1.25 years = 22,242,187.5 vehicle miles per 12,187 wildlife fatalities, or 1,825 vehicle miles per fatality. This rate divided into the predicted annual VMT, above, would predict 4,725 vertebrate wildlife fatalities per year. My analysis of data in Table 3 suggests that the project-caused mortality along local roadways would be even higher.

Based on my analysis, the project-generated traffic would cause substantial, significant impacts to wildlife. The DEIR does not address this potential impact, let alone propose to mitigate it. Mitigation measures to improve wildlife safety along roads are available and are feasible, and they need exploration for their suitability with the proposed project. Given the predicted level of project-generated, traffic-caused mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts. The DEIR should be withdrawn

from circulation and revised to appropriately analyze the potential impacts of project-generated automobile traffic on wildlife.

CUMULATIVE IMPACTS

The DEIR attempts to minimalize the project's contributions to cumulative impacts to biological resources by asserting that "ruderal herbaceous land is not considered sensitive wildlife habitat." However, CEQA does not require that the habitat that would be lost to a project be labeled as sensitive; no such standard exists.

The DEIR presents a flawed analysis of cumulative impacts, including to biological resources. The DEIR asserts that it "sets forth mitigation measures to ensure all potential project-specific impacts that would occur to biological resources are reduced to a less-than-significant level." And therefore, "the proposed project would not result in substantial adverse effects to biological resources protected by CEQA." The DEIR contrives the false standard that a given project impact is cumulatively considerable only when it has not been fully mitigated at the project level. The DEIR implies that cumulative impacts are really residual impacts left over by inadequate mitigation of project impacts. This notion of residual impacts being the source of cumulative impacts is inconsistent with CEQA's definition of cumulative effects. Individually mitigated projects do not negate the significance of cumulative impacts. If they did, then CEQA would not require a cumulative effects analysis. To summarize, the DEIR presents no cumulative effects analysis as defined in two ways by CEQA.

MITIGATION

Western Burrowing Owl

4.3-2(a) If project construction begins during the western burrowing owl nesting season (February 15 to August 31), a qualified biologist shall conduct targeted burrowing owl nest surveys within 14 days prior to construction activities using seven- to 20-foot transects. ... The survey shall ... follow CDFW guidelines outlined in the 2012 Staff Report on Burrowing Owl Mitigation.

The avian breeding season recognized by the CDFW is now 1 February through 15 September. The DEIR should be revised accordingly.

Whereas I concur that preconstruction, take-avoidance surveys should be completed, the DEIR falsely characterizes preconstruction surveys as detection surveys by insinuating that conducting preconstruction surveys without first having completed detection surveys would follow CDFW guidelines. Detection surveys are entirely different than preconstruction surveys, and are implemented to achieve a different set of objectives. Contrary to the DEIR's implication, preconstruction surveys are not designed to detect burrowing owls with anywhere close to the same likelihood as are protocol-level detection surveys that are designed for this purpose. It would be very easy for a preconstruction survey to fail to detect burrowing owls that are in fact present. Therefore, implementing a preconstruction survey as a surrogate for detection surveys would be reckless and would fail to meet the minimum standard of care for wildlife

protection. In any case, preconstruction surveys need to be implemented after completion of detection surveys per CDFW (2012).

Tricolored Blackbird

4.3-2(c) Prior to any ground disturbance on SMP 40, a qualified biologist shall conduct a preconstruction survey in all accessible areas identified as supporting potential tricolored blackbird nesting habitat. The survey shall document the current, and to the extent possible, historical presence or absence of nesting colonies of tricolored blackbird. …

Whereas I concur that preconstruction, take-avoidance surveys should be completed, a detection survey is needed first to inform the readers of the DEIR of whether and where tricolored blackbirds occur on or near the project sites. A detection survey would likely also improve the efficacy of the preconstruction survey.

Nesting Birds and Raptors (Including Loggerhead Shrike)

4.3-2(d) If project construction begins during the nesting season (February 1 to August 31), a qualified biologist shall conduct a nesting bird survey within 7 days prior to construction activities. … If migratory birds are identified nesting on or within the zone of influence, … A qualified biologist shall establish a temporary protective nest buffer around the nest(s). The nest buffer shall be staked with orange construction fencing. The buffer must be of sufficient size to protect the nesting site from construction-related disturbance and shall be established by a qualified ornithologist or biologist with extensive experience working with nesting birds near and on construction sites.

Typically, adequate nesting buffers are 75 feet from the nest site or nest tree dripline for small birds and up to 300 feet for sensitive nesting birds that include several raptor species known in the region of the project site but that are not expected to occur on the project site. Upon completion of nesting surveys, if nesting birds are identified on or within a zone of influence of the project site, a qualified ornithologist/biologist that frequently works with nesting birds shall prescribe adequate nesting buffers to protect the nesting birds from harm while the project is constructed.

First, the avian breeding season recognized by the CDFW is now 1 February through 15 September. The DEIR should be revised accordingly.

Second, whereas I concur that preconstruction, take-avoidance surveys should be completed, in my experience the majority of bird nests would not be found by biologists assigned to the survey. For instance, I surveyed for grassland nesters as part of an intensive survey effort that I performed from March through mid-August 2023 on a Central Valley site. I surveyed the site 30 times. I found that the nests of grassland birds are the most difficult to locate. Cavity nesters can more effectively defend their nests against predators, whereas ground nesters are highly vulnerable to predation, and thus the most cryptic of nesters. Ground nesters, which include bird species that occur at the project site, are highly adept at concealing their nests both physically and behaviorally. Based on my experience, it is highly likely that preconstruction survey would fail to find

any of the nests of ground-nesting birds that truly occur on the project site. The DEIR's implication that preconstruction survey would reduce potential impacts to nesting birds to less-than-significant is unsubstantiated by evidence in the DEIR.

The mitigation measure appears to be specifically directed toward loggerhead shrike, presumably because this special-status species was detected during a reconnaissance survey of SMP 40. Finding the nests of loggerhead shrikes is particularly difficult, as this species is expert at deceiving observers as to the whereabouts of their nests (Smallwood and Smallwood 2021). To adequately survey for nest sites of loggerhead shrike, many surveys are needed, and the survey methods need to include long sessions of visual-scans, preferably from blinds such as automobiles. Observers would need to be experienced in bird behavior, and capable of tracking the movements of individual loggerhead shrikes. A preconstruction survey for loggerhead shrike nest would be ineffective by having inexperienced biologists walk back and forth along transects.

Third, the mitigation language (second italicized paragraph above) allows a single individual to make a subjective decision, outside the public's view, to determine the buffer area for any given species. This measure lacks objective criteria, and is unenforceable.

Even assuming some or even all of the nests would be found and salvaged, this benefit to birds nesting on site would apply only to a single breeding season of nesters. The project would nevertheless eliminate the site's productive capacity to birds.

SMP 40 and Trail Connection Option 2
4.3-3(c) Prior to the commencement of ground-disturbing activities for SMP 40 or Trail Connection Option 2, … [Six minimization and mitigation measures follow, one of which is] *… the riparian corridor of Arroyo Mocho, disturbed areas shall be revegetated with native riparian plant species. Replacement of riparian trees to be removed shall be planted near the creek as feasible and/or adjacent to the existing limits of the riparian corridor to contribute to the existing riparian canopy. Riparian plantings shall be maintained for a minimum of 5 years to ensure that the canopy is enhanced and the understory restored.*

Trail Connection Option 2 – Undercrossing at Isabel Bridge
4.3-3(d) Prior to initiation of any groundbreaking activity associated with Trail Connection Option 2, … The project applicant shall ensure that the proposed project replaces, restores, or enhances on a "no net loss" basis (in accordance with the RWQCB) the acreage of all riparian habitat and waters of the State that would be removed, lost, and/or degraded due to project implementation by methods agreeable to the RWQCB and the City, as appropriate, depending on agency jurisdiction, and as determined during the Section 401 permitting processes. Methods include, but are not limited to implementation of a riparian enhancement planting plan and/or tree planting mitigation at a 1:1 ratio, or as otherwise prescribed by the RWQCB.

Trail Connection Option 2 – Undercrossing at Isabel Bridge

4.3-3(e) If it is determined that work below the OHWM cannot be avoided for Trail Connection Option 2, … Waters that would be lost or disturbed shall be restored, replaced, or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement, including the purchase of credits from a USACE approved mitigation bank at a 1:1 ratio, shall be at a location and by methods acceptable to the USACE.

I concur that all of the measures described above should be implemented if the project goes forward. However, these measure alone would be inadequate. Also needed is monitoring of wildlife that is integrated with thresholds of success and failure. If thresholds of failure are exceeded, then the City should be required to take additional steps to achieve success. To this end, an adequate performance bond should be provided by the applicant to the City.

RECOMMENDED MEASURES

Road Mortality: Compensatory mitigation is needed for the increased wildlife mortality that would be caused by bird-window collisions and the project-generated road traffic in the region. I suggest that this mitigation can be directed toward funding research to identify fatality patterns and effective impact reduction measures such as reduced speed limits and wildlife under-crossings or overcrossings of particularly dangerous road segments. Compensatory mitigation can also be provided in the form of donations to wildlife rehabilitation facilities (see below).

Fund Wildlife Rehabilitation Facilities: Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Many animals would likely be injured by collisions with automobiles traveling to and from the project's buildings.

Landscaping: If the project goes forward, California native plant landscaping (i.e., chaparral, grassland, and locally appropriate scrub plants) should be considered to be used as opposed to landscaping with lawn and exotic shrubs. Native plants offer more structure, cover, food resources, and nesting substrate for wildlife than landscaping with lawn. Native plant landscaping has been shown to increase the abundance of arthropods which act as importance sources of food for wildlife and are crucial for pollination and plant reproduction (Narango et al. 2017, Adams et al. 2020, Smallwood and Wood 2022.). Further, many endangered and threated insects require native host plants for reproduction and migration, e.g., monarch butterfly. Around the world, landscaping with native plants over exotic plants increases the abundance and diversity of birds, and is particularly valuable to native birds (Lerman and Warren 2011, Burghardt et al. 2008, Berthon et al. 2021, Smallwood and Wood 2022). Landscaping with native plants is a way to maintain or to bring back some of the natural habitat and lessen the footprint of urbanization by acting as interconnected patches of habitat for wildlife (Goddard et al. 2009, Tallamy 2020). Lastly, not only does native plant landscaping benefit wildlife, it requires less water and maintenance than traditional landscaping with lawn and hedges.

Thank you for your consideration,

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Shawn Smallwood, Ph.D.

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December 12, 2023

Stephanie Papayanis, Esq.
Mitchel M. Tsai, Attorney at Law
139 South Hudson Avenue, Suite 200
Pasadena CA 91101
stephanie@mitchtsailaw.com

Subject: **City of Livermore SMP 38/SMP 39/SMP 40 Project**
Review of DEIR Noise Section & Appendices

Dear Stephanie:

We have completed a review of Section 4.6 (Noise), as well as Appendices J and K (Environmental Noise Assessments) of the Draft Environmental Impact Report for the City of Livermore SMP 38/SMP 39/SMP 40 Project, focusing on the adequacy of the noise impact analyses. Here are our findings:

OVERVIEW

Section 4.6 of the DEIR is based on environmental noise assessments prepared by Salter.

- Significance Standards

  The DEIR significance standards for noise and vibration impacts are based directly on Section XIII of the Environmental Checklist in Appendix G of the current CEQA Guidelines, which reads as follows:

  XIII. NOISE - Would the project result in:

  a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of the local general plan or noise ordinance, or applicable standards of other agencies?

  b) Generation of excessive groundborne vibration or groundborne noise levels?

  c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?

  Salter has proposed a 3 dBA increase in ambient noise levels as the threshold for a "substantial increase". We concur that this is a reasonable value for CEQA evaluation of this project.

- Operational Noise & Construction Vibration

  The analysis in Section 4.6 shows that noise impacts from operational noise (loading dock activity, HVAC, on-site vehicle movements) as well as vibration during on-site construction are less-than-significant. Generally, the analysis supporting this finding appears to be methodical and well done, consistent with current CEQA Guidelines, and we take no exception to it.

- Construction Noise Impacts

  Section 4.6 also includes an analysis of construction noise impacts on the nearest sensitive uses – i.e.: the single-family residential neighborhood to the east of the project sites. This analysis covers on-site construction activity for SMP 40 as well as the construction of off-site trail connections at three potential locations (each within 200-feet of the nearest residential use).

The impact of construction noise on the SMP 39 site is not covered in the DEIR.

For the off-site trail connection construction, the DEIR states that noise impacts are significant without mitigation and provides a list of mitigation measures (4.6-1) to reduce this impact to less-than-significant level. Generally, we agree with this finding and the proposed mitigation measures.

For on-site construction, the DEIR states that noise impacts will be less-than-significant. However, the analysis presented in the DEIR does not – in our opinion – adequately support this conclusion, for the reasons outlined below.

PROBLEMS WITH THE ON-SITE CONSTRUCTION NOISE IMPACT ANALYSIS

- <u>SMP 39 is Excluded</u>

  Construction noise from the SMP 39 site is not included in the analysis in Section 4.6 of the DEIR. An explanation for this omission is provided in the final paragraph on page 4.6-21, which reads in part:

  "Due to the substantial distance between SMP 39 and the sensitive noise receptors, it was anticipated that construction noise associated SMP 39 would be below the City of Livermore's exterior noise level threshold of 60 dBA DNL at the nearest sensitive receptor locations. Thus, construction noise levels for SMP 39 were not evaluated as part of the Environmental Noise Study for SMP 39."

  There are two problems with this explanation:

  First, CEQA requires an actual analysis to show whether a project impact is significant or less-than-significant. Simply "anticipating" that there will be no significant impact falls short of the standard required for a CEQA study.

  Second, the 60 dBA DNL exterior noise standard (which comes from the land-use compatibility table in the Noise Element of the City of Livermore General Plan) is only one of the applicable local regulations. The DEIR analysis should address all applicable regulations in both the General Plan and Municipal Code.

- <u>Analysis for SMP 40 is Incomplete</u>

  The noise impact analysis for construction on the SMP 40 site compares Salter's noise level predictions with instantaneous maximum noise level (Lmax) limits of 70 dBA during the day and 60 dBA at night, which are taken from Policy N-1.5.P3 of the City of Livermore General Plan.

  However, these Lmax noise limits are not the only local regulations that would apply to construction noise on the SMP 40 site.

  For example, the DEIR does not show how construction noise from SMP 40 would compare to Policy N-1.5.P2 of the General Plan, which prescribes the following noise limits, depending on the cumulative duration of the noise:

Daytime Noise Limit (7AM – 10PM)	Nighttime Noise Limit (10PM – 7AM)	Cumulative Duration
60 dBA	50 dBA	No more than 15-minutes in any hour.
65 dBA	55 dBA	No more than 5-minutes in any hour.
70 dBA	60 dBA	No more than 1-minute in any hour.

Similarly, the DEIR does not include an DNL analysis for construction noise from SMP 40 to show that it will be below the 60 dBA exterior noise standard taken from land-use compatibility table (Table 9-7) in the General Plan. This will be particularly important if any construction work is to occur at night.

- <u>There is an Error in the Calculations for SMP 40</u>

  Table 4.6-6 of the DEIR lists estimated Lmax noise levels for various pieces of construction equipment at a distance of 50-feet (these are standard reference values, taken from the FHWA Construction Noise Handbook) and extrapolates them to a distance of 884 feet.

  According to Table 4.6-6, the equipment noise levels received at a distance of 884 are 57 dBA lower than lower than those received at a distance of 50-feet. This is incorrect. According to the radiation equation for point sources (such as individual pieces of construction equipment) the reduction in noise level from 50-feet to 884 feet is:

  $10 \times LOG_{10}(884/50) = 25$ dBA

  So, the estimated Lmax noise levels provided in Table 4.6-6 are 32 dBA lower than they should be. Which means that noise from several of the pieces of equipment listed should be expected to produce a maximum level of noise at the nearest residences that is either right at the 60 dBA nighttime limit or, in the case of paving equipment, 4 dBA above it.

- <u>Construction on the East Side of the SMP 40 Site is Overlooked</u>

  The construction noise analysis in the DEIR for SMP 40 considers assumes receivers 884-feet away from the equipment – which is the distance between the location proposed for Building 2 and the nearest residences. However, there will be certain phases of construction – such as site preparation and paving/landscaping/site concrete – when noisy equipment could be operating closer than 884-feet from nearby residential uses.

  For example, the eastern corner of the SMP 40 site is within 600-feet of the nearest residential use. Received noise levels at a distance of 600-feet from the equipment would be 3 dBA higher than those received at 884-feet, which means that the expected noise level at the nearest residences when paving equipment is in use in the eastern corner of the site would be 67 dBA, Lmax and not 32 dBA, Lmax as reported in Table 4.6-6.

SUMMARY & RECOMMENDATIONS

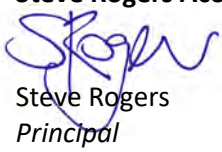
We find that, while much of the noise analysis in the DEIR has been done to the standard expected of a CEQA study, the evaluation of noise impacts during the construction phases is incomplete and contains a significant calculation error. We therefore recommend that the preparers be requested to revise/correct the Noise Section (4.6) of the DEIR as follows:

- Include SMP 39 in the on-site construction noise impact analysis. The analysis should take account of the anticipated number of pieces of equipment in use at any one time during each phase as well as estimated usage factors, so that construction noise impacts can be evaluated in the in the context of the City of Livermore General Plan DNL 60 dBA exterior noise standard (from Table 9-7) and the time-dependent noise limits in Policy N-1.5.P2, as well as the Lmax noise limits in Policy N-1.5.P3.
- For on-site construction on the SMP 40 site, the noise impact analysis should be expanded to take account of the anticipated number of pieces of equipment in use at any one time during each phase as well as estimated usage factors, so that construction noise impacts can be evaluated in the in the

context of the City of Livermore General Plan DNL 60 dBA exterior noise standard (from Table 9-7) and the time-dependent noise limits in Policy N-1.5.P2, as well as the Lmax noise limits in Policy N-1.5.P3.

- Table 4.6-6 should be revised to show the correct (25 dBA) reduction in point-source noise levels from 50-feet to 884-feet.
- Provide additional analysis for any construction activity on the SMP 40 site (such as site preparation, paving/landscaping) that could occur closer than 884-feet from the nearest residential use.

Yours sincerely,
Steve Rogers Acoustics, LLC



Steve Rogers
Principal

VIA E-MAIL

March 5, 2024
City of Livermore Planning Commission
City Council Chambers
1016 S. Livermore Avenue
Livermore, CA 94550
Em: planning@LivermoreCA.gov

RE: City of Livermore's SMP 39 and 40 Planning Commission Meeting

Dear Ashley Vera,

On behalf of "**Carpenters Local 713**", my Office is submitting these supplemental comments for the City of Livermore's ("**City**") Draft Environmental Impact Report ("**Draft EIR**" or "**DEIR**") and Final Environmental Impact Report ("**Final EIR**" or "**FEIR**") for the **March 5, 2024 Planning Commission Meeting** for the SMP 39 and 40 Project ("**Project**").

According to the Project's Notice of Availability ("**NOA**") of a Draft EIR Project Description:

> "On **SMP 38**, the proposed project includes a Sphere of Influence (SOI) Amendment to **include** SMP 38 within the **City of Livermore** SOI and **remove** it from the **City of Pleasanton's** SOI. The City of Livermore General Plan land use designation for SMP 38 would remain Limited Agriculture and Open Space/Sand and Gravel and the Alameda County zoning designation would remain Agriculture. **Development of SMP 38** is **not proposed**.
>
> For **SMP 39**, the proposed project would include development of a total of **up to six light industrial buildings**, consisting of **up to approximately 755,500 square feet** (sf) of new building space, and associated **internal roadways** and **other** improvements. **For SMP 40**, the proposed project would include development of **two industrial buildings** containing up to **759,275 sf of new building space** with

related **internal roadways** and **other** improvements. A number of approvals would be required for development of SMP 39 and SMP 40, including a **SOI Amendment for SMP 39**, **General Plan Amendment**, **Pre-zoning** and **Annexation**, **Zoning Map Amendment**/Planned Development, Vesting Tentative Subdivision **Maps**, a **Pre-Annexation Agreement**, and **Development Agreement**. A **Site Plan Design Review** entitlement is required for SMP 39 and SMP 40, which would include a review of the site plan, building, and landscape design; however, the entitlement is **only proposed for SMP 40 at this time**. A Site Plan Design Review entitlement will be required **at a later date** for the future development of **SMP 39**. In addition, the proposed project would include **annexation of four additional parcels** (APNs 904-10-2-3, -5, -7, and -8) located **east of SMP 40**. Development is **not proposed** on the additional parcels **as part** of the proposed project.

The project would include a **paved at-grade, on-site trail along the boundaries** of the SMP 40 site, consistent with the City's Active Transportation Plan. Specifically, the on-site trail would extend from the northeastern corner of the site, along the project site's eastern, southern, and western boundaries, before connecting to an existing off-site paved shared-use path at the northwestern corner of site, which extends along the west side of the Oaks Business Park to the north and connects to West Jack London Boulevard.

In addition, the project would include a **new off-site connection to the existing Arroyo Mocho Trail**, located on the east side of Isabel Avenue/SR 84. For the purposes of the Draft EIR analysis, three alternatives for the proposed off-site Isabel Avenue/SR 84 crossing to the existing Arroyo Mocho Trail are considered and evaluated in the Draft EIR, including the following, and described in more detail in the Draft EIR:

- Trail Connection Option 1 – **At-Grade** Crossing at **Discovery Drive**;
- Trail Connection Option 2 – **Undercrossing** at **Isabel** Bridge; and
- Trail Connection Option 3 – **Overcrossing** of **Isabel** Avenue/SR 84."

NOA of Draft EIR, pp. 1-2, emph. added.

The concurrently circulated Draft EIR contains the same project description. DEIR, pp. 1-2—1-4.

Carpenters Local 713 is a labor union representing union carpenters in Alameda County , and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects.

Local 713 members live, work, and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

Carpenters Local 713 expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

Carpenters Local 713 incorporates by reference all comments related to the Project or its CEQA review, including the Environmental Impact Report. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, Carpenters Local 713 requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

I. CEQA REQUIRES SUBSEQUENT OR SUPPLEMENTAL ENVIRONMENTAL REVIEW WHEN SUBSTANTIAL CHANGES OR NEW INFORMATION COMES TO LIGHT

Section 21092.1 of the California Public Resources Code requires that "[w]hen significant new information is added to an environmental impact report after notice has been given pursuant to Section 21092 … but prior to certification, the public agency shall give notice again pursuant to Section 21092, and consult again pursuant to Sections 21104 and 21153 before certifying the environmental impact report" in order to give the public a chance to review and comment upon the information. (CEQA Guidelines § 15088.5.)

Significant new information includes "changes in the project or environmental setting as well as additional data or other information" that "deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative)." (CEQA Guidelines § 15088.5(a).) Examples of significant new information requiring recirculation include "new significant environmental impacts from the project or from a new mitigation measure," "substantial increase in the severity of an environmental impact," "feasible project alternative or mitigation measure considerably different from others previously analyzed" as well as when "the draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded." (Id.)

An agency has an obligation to recirculate an environmental impact report for public notice and comment due to "significant new information" regardless of whether the agency opts to include it in a project's environmental impact report. (Cadiz Land Co. v. Rail Cycle (2000) 83 Cal.App.4th 74, 95 [finding that in light of a new expert report disclosing potentially significant impacts to groundwater supply "the EIR should have been revised and recirculated for purposes of informing the public and governmental agencies of the volume of groundwater at risk and to allow the public and governmental agencies to respond to such information."].) If significant new information was brought to the attention of an agency prior to certification, an agency is required to revise and recirculate that information as part of the environmental impact report.

The City's Supplemental Memorandum ("**Exhibit A**") identifies numerous substantial changes to the EIR. Most notably Noise Impacts section was dramatically changed based on updated Noise Studies for SMP 39 and 40 and newly determined significance thresholds were applied. These updated studies were only finalized one day ago and given to the public ***less than four hours*** before the Planning Commission hearing. Moreover, the updated studies and significance thresholds resulted in an entirely new

mitigation measure in the MMRP. (See **Exhibit A** at 695). Indeed, the most recent revision now predicts SMP 40 construction-related noise will exceed the thresholds established by the City. As such, the dramatic change in the findings of the EIR ***requires recirculation*** so that the public may provide its input.

II. THE FEIR IS IMPROPER AS IT DOES NOT INCLUDE ALL CHANGES TO THE DEIR

The FEIR cannot be certified by the Planning Commission as it does not include the numerous changes created by the Supplemental Memorandum released mere hours before the Planning Commission Hearing. Under CEQA Guidelines Section 15132, a FEIR shall include:

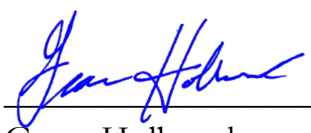
> "(a) The draft EIR or a revision of the draft.
> (b) Comments and recommendations received on the draft EIR either verbatim or in summary.
> (c) A list of persons, organizations, and public agencies commenting on the draft EIR.
> (d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
> (e) Any other information added by the Lead Agency."

As the FEIR has received ***two rounds of revisions*** since it was originally prepared in January 2024, the document proposed for certification is an inaccurate reflection of the FEIR. As such, the Planning Commission must not certify the FEIR until, at a minimum, the document reflects the most up-to-date version.

III. CONCLUSION

Based on the foregoing, the Planning Commission should deny the FEIR's certification, and the Environmental Impact Report should be revised and recirculated pursuant to CEQA, consistent with the comments and issues identified in this and previous comment letters.

Sincerely,



Grace Holbrook
Attorneys for Carpenters Local 713

Attached:

Supplemental Memorandum (Exhibit A).

LIVERMORE
CALIFORNIA

PLANNING COMMISSION STAFF REPORT **ITEM NO. 10.1**

DATE: March 5, 2024

TO: Chairperson and Members of the Planning Commission

FROM: Steve Riley, Acting Planning Manager

SUBJECT: Supplemental Materials received prior to the meeting.

RECOMMENDED ACTION

SUMMARY

These materials were posted online and made available to the public at the same time that they were distributed to the Planning Commission.

5.1 - Hearing to consider a request for an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Development Code Amendment, Vesting Tentative Parcel Map, Vesting Tentative Tract Map, Planned Development, and Site Plan Design Review for the SMP 39 and 40 Project to zone for and develop light industrial uses near the northwest part of the City.

Materials: Response to comments memorandum and errata, Conceptual site plan for SMP 39, Revised engineering consideration, Letters received in advance of the meeting, and Development agreements signed by the applicant.

DISCUSSION

ATTACHMENTS

1. Supplemental Materials

Prepared by: Michele Donley
Division Clerk

SMP 39/SMP 40 Project
Supplemental Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum

As mentioned in the memorandum entitled, "Responses to Comments Received After the Close of the Draft Environmental Impact Report Public Review Period and Erratum", the City would be following up with a supplemental memorandum to provide responses to the "Attorneys for Carpenters Local 713" letter, dated February 14, 2024, which was received after the release of the Final Environmental Impact Report (EIR) for the SMP 39/SMP 40 Project (proposed project). This supplemental memorandum provides the responses to the above-referenced letter.

While CEQA does not require that written responses be provided for letters received after the close of the public review period, the comments are acknowledged by the City, and the City has chosen to prepare written responses to the comments for the decision-makers consideration in making an informed decision. Responses to the "Attorneys for Carpenters Local 713" comment letter, which is included as Attachment 1, are provided below. Where revisions to the EIR text are required in response to a comment, new text is double underlined and deleted text is ~~struck through~~.

The comments received did not identify any new significant impact, substantial increase in severity of a significant impact identified in the EIR, or any significant new information. Therefore, recirculation of the EIR is not required.

Response to Stephanie Papayanis, Attorneys for Carpenters Local 713
The majority of the comment letter, including the entirety of Comment I and Comment II(A) of the comment letter, is identical to the comment letter submitted by Attorneys for Carpenters Local 713 during the Draft EIR comment period. As such, with regard to Comment I and Comment II(A) included in the comment letter, please see Responses to Comments 5-3 and 5-5 included in the Final EIR.

The new concerns brought forth in the comment letter are limited to Comment II(B) and Comment II(C) related to biological resources and construction noise. Thus, responses to Comment II(B) and Comment II(C) are provided below.

Comment II(B) Related to Biological Resources
Responses to the commenter's concerns regarding biological resources are provided below, as informed by Monk & Associates (M&A), who prepared the project-specific Biological Resources Assessments (BRAs) used within the Draft EIR analysis. It should be noted that Comment II(B) is a summary of the comments provided in Exhibit D to the Attorneys for Carpenters Local 713 comment letter, which is a letter authored by Shawn Smallwood, PhD. As such, the following responses are organized based on the comments presented in Exhibit D of the Attorneys for Carpenters Local 713 comment letter.

Environmental Setting Informed by Field Surveys
Page 16 of the Exhibit D comment letter states: "The results of the Monk and Associates (2021, 2023) surveys have been misinterpreted in the reports, resulting in inaccurate characterizations of the existing environmental settings of SMP 39 and SMP 40." The commenter is referring to the fact that M&A biologists recorded fewer bird species on-site and flying overhead than the commenter did during a reconnaissance visit. The environmental setting or environmental

baseline of a project site is informed by much more than the number of birds and mammals one sees in a certain amount of time.

The CEQA Guidelines Section 15125(a) requires that the CEQA document prepared for a project discuss the "baseline" environmental conditions at and in the vicinity of the project sites. CEQA Guidelines Section 15125 (see also Section 15126.6(e)(2)) states the following regarding the environmental setting as it relates to baseline:

> (a) [the CEQA review document] must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to understanding the significant effects of the proposed project.

M&A conducted several surveys on each of the project sites. As explained in the SMP 39 BRA included as Appendix D to the Draft EIR, M&A survey work in the project area dates to the year 2000. However, because CEQA requires current baseline conditions, none of the plants or wildlife observed in the early 2000s were reported in the BRAs. The 2021 surveys are the baseline surveys that were conducted to record existing biological resources and to assess the likelihood of resource agency regulated areas on the project sites. The surveys involved searching all habitats on the sites and recording all plant and wildlife species observed. M&A cross-referenced the habitats found on the project sites against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species and if additional protocol level surveys would be necessary to assess potential impacts to special status species.

CEQA does not require an exhaustive list of all bird species that could occur on a project site, nor does CEQA require a discussion of what each species is doing at the time the species is observed. Rather, CEQA requires an analysis of potential impacts to special-status birds and/or nesting habitat for common birds that rise to the level of significance pursuant to CEQA as determined by an expert, based on database searches, field surveys, etc. M&A's BRAs provide that analysis and recommend pre-construction surveys to address potentially significant impacts. Overall, the BRAs meet the standards of care warranted under CEQA.

Habitat Loss

The commenter's estimate on the number of birds "denied to California" is primarily based on two studies. The commenter states that the two study sites have grassland/wetland/woodland complexes within agricultural matrices, and found total bird nesting densities of 32.8 and 35.8 nests per acre. The commenter uses one-third of such estimates for the project sites' calculation due to the annual discing that occurs on the project sites. However, the estimation is likely still an overestimate, as one study was conducted in a five-acre, undisturbed, unfragmented and preserved area within the over-500-acre University of Wisconsin Arboretum dedicated in 1934, adjacent to a 321-acre lake (Lake Wingra). The SMP 39 and SMP 40 project sites are not surrounded by hundreds of acres of preserved natural lands but rather the relatively small project sites are fragmented from natural areas by surrounding, existing development (busy roads, an airport, and active industrial uses).

The other study mentioned by the commenter was conducted within farmstead shelterbelts, or "man-made habitats consisting of parallel rows of trees and shrubs designed to protect farmsteads from damaging winds, drifting snow and blowing soil…" referred to as "wooded

islands." The study determined that the wooded islands are important for avifauna in regions of intensive agriculture and found many nests within the wooded region. The SMP 40 project site has a similar "wooded island," in that the wooded area that is a riparian corridor along Arroyo Mocho is being preserved within a riparian set back and will provide high-quality habitat for many nesting birds post-development. The preservation of Arroyo Mocho's riparian habitat was not considered in the commenter's calculations.

Further, the commenter's comparison of development of the proposed project to the high avian mortality rate by wind turbine collision in the Altamont Pass Wind Resource Area is not an appropriate comparison. The commenter is comparing 50-foot-tall buildings on the project sites to 430-foot-tall wind turbines with active, moving blades in a known avian migration zone; an area that supports the highest number of nesting Golden Eagles in the world.[1]

Regardless of the commenter's inappropriate comparison and overestimate of the number of birds "denied to California" due the loss of nesting habitat by the proposed projects, CEQA requires an analysis of potential impacts to special-status birds and/or nesting habitat for common birds that raise to the level of significance. Therefore, impacts to nesting birds were regarded as significant pursuant to CEQA in the Draft EIR. However, mitigation measures to protect special-status birds and all nesting birds have been prescribed in the Draft EIR (see Mitigation Measures 4.3-2[a] through 4.3-2[d] in the Draft EIR). The mitigation measures included therein reduce impacts to nesting birds to a less-than-significant level pursuant to the CEQA. Thus, the commenter's concerns about the projects' impacts to nesting birds have been sufficiently addressed.

Interference with Wildlife Movement

The commenter is correct that the Essential Habitat Connectivity Area mapped by the California Department of Fish and Wildlife (CDFW) is focused on connecting very large blocks of mostly protected natural lands. While the Draft EIR does state that the project sites are not located in this mapped area, that is only one sentence of the three-paragraph description under the Wildlife Movement Corridor section of the Draft EIR (see pages 4.3-14 to 4.3-15 of the Draft EIR). The comment implies that sufficient research and in-person assessments were not conducted accordingly, and that the determination that the project sites will not impact significant wildlife corridors was solely based on using the CDFW's Essential Habitat Connectivity Area map, which simply is not true.

For example, M&A conducted online research and project-specific field surveys to become informed about the project sites' habitats and the potential for any impacts to regional wildlife corridors based on development of the proposed projects. M&A recorded wildlife observed during site visits, in addition to extensively noting the habitat types and surrounding land uses during their visits and how the surrounding land uses would affect wildlife movement. As such, the commenter's statement that the conclusions of the Draft EIR regarding wildlife movement on the project site are speculative and conclusory is untrue.

Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors are extremely important habitats to preserve and are valuable for wildlife. While local wildlife may use the undeveloped sites in their current state, neither of the project sites currently provide a significant regional wildlife corridor that may be impacted by the proposed project. The project sites are regularly disced or disturbed for agriculture. For SMP 40, an

[1] National Audubon Society. *National Audubon Society Sues California County to Improve Bird Protections in Controversial Wind Energy Project.* Available at: https://www.audubon.org/news/national-audubon-society-sues-california-county-improve-bird-protections#:~:text=17%2C%202021)%2D%2DThe%20National,turbine%20facility%20at%20Altamont%20Pass%2C. Accessed February 2024.

industrial development, Oaks Business Park, is located to the north of the project site, east of the project site is Isabel Avenue, a heavily-trafficked road, south is an active railroad track and Stanley Boulevard, another heavily-trafficked road, and west of the project site are quarry ponds. SMP 39 is bordered by West Jack London Boulevard, a well-trafficked road, the Livermore Municipal Airport, the Oaks Business Park, and quarry ponds. The quarry ponds were excavated in uplands and, thus, are not associated with a creek or drainage, and have nearly vertical slopes, preventing wildlife from traversing the ponds easily or using the quarry area as a corridor. As mentioned in M&A's BRAs, both SMP 39 and SMP 40 are isolated from regional open spaces, and, as such, do not have regional wildlife corridor value for terrestrial mammals and contain minimal habitat that could be used by some migrating avian species.

The commenter states: "On the other hand, the coyote I saw on site got there somehow, and so did the ground squirrels and pocket gophers, and so did all of the birds I saw on and over SMP 39." One might infer from this statement that M&A's reports and the Draft EIR implied that wildlife do not use, or could not be found on the project sites, which is incorrect. Each of M&A's BRAs included a table of wildlife species observed on the project sites during site visits, which, as described in the BRAs, is not intended to be exhaustive or to describe the only species that could be found on the project sites. Rather, the focus was, as required by CEQA and as appropriate, on the assessment of biological resources with regard to suitable habitat and potential for the occurrence of any special-status species, as determined by a qualified biologist for the purposes of an impact analysis. Movement of a species through an area or an area's incidental use does not necessarily imply importance to the species, the characteristics of the habitat are more relevant.

For example, Figure 3 of the commenter's report shows the fly over and resting locations of Golden Eagles, which provides an example of how local wildlife may use the project sites as well as all surrounding areas, including properties completely developed with warehouses and surrounded by busy roads. However, while species such as the Golden Eagle may use the project site for foraging or resting on occasion, or may flyover, it is clear that the project sites are not the main sites that are relied upon by these large raptors for any of the above functions, or for nesting, as the existing trees are too small and in close proximity to disturbance.

The SMP 40 riparian area may provide significantly more suitable rest, foraging and nesting habitat for many bird species than the open and disturbed grassland does. However, as previously described, the riparian area on SMP 40 will be completely preserved within a riparian setback and will continue to connect local wildlife within the riparian corridor along the Arroyo Mocho.

The commenter also mentions that 19 special-status species so far have been documented on the project site, as further detailed in Table 1 of the commenter's report. However, the commenter's list includes species that do not meet the definition of "rare" pursuant to the CEQA. For example, Table 1 includes Red-tailed Hawk (*Buteo jamaicensis*), California Gull (*Laus californicus*), Double-crested Cormorant (*Phalacrocorax auritus*), Nuttall's Woodpecker (*Picoides nuttallii*), and Oak Titmouse (*Baeolophus inornatus*), which are designated as Birds of Prey (BOP), Birds of Conservation Concern (BCC) by U.S. Fish and Wildlife Service, and Taxa to Watch List. However, the aforementioned listings are not considered special-status under the California or Federal Endangered Species Acts (CESA and FESA), by other regulations, or by the scientific community pursuant to the CEQA. Nonetheless, it should be noted that these species, their nests, eggs and/or young are provided protection pursuant to other resource agency regulations such as the Migratory Bird Treaty Act (MTBA) and the California Fish and Game Code Sections 3503, 3503.5, 3511, and 3513C, which are both fully accounted for and discussed in M&A's BRAs and the Draft EIR.

In addition, the commenter does not specify which of the 19 species were observed during his site visit, or which were taken as observations from eBird. While many experienced birders may use eBird, anyone can report incidental bird sightings to eBird without any way to confirm the qualifications of the observer. As such, relying only on eBird data to say confidently that a special-status species is present on a property is not sufficient and would need to be confirmed by a qualified biologist. As mentioned by the commenter, several of the species sightings are birds flying over the project sites. As discussed in sections above, observing sensitive birds flying over a property, foraging over the site, or using the habitat on the sites during the non-nesting season does not warrant reporting to the California Natural Diversity Database (CNDDB), as such sightings are not of permanent breeding/nesting/larval development habitat (dependent on what type of animal it is) that warrant protection. The types of "incidental" sightings of common bird species do not necessarily translate into a "potentially significant biological impact" pursuant to CEQA Guidelines and regulations.

Further, while the project sites in their current state may be used by local wildlife, they provide very low value for foraging, resting or nesting, as the project sites are mainly comprised of non-native ruderal herbaceous habitats and are highly disturbed due to agricultural practices. The project sites are not one of the last remaining stopover and staging opportunities in the region, as stated by the commenter, as acres of undeveloped land similar to the project sites is located within the very immediate area, as well as dozens of local parks. The 80-acre Shadow Cliffs Regional Recreation Area is less than two miles from the project sites and the 160-acre Doolan Canyon Regional Preserve beyond provides more undeveloped land to the north. All of the aforementioned habitats in the region provide habitat for the species listed in the table of wildlife observed included in Exhibit D of the comment letter, and have far greater wildlife corridor habitat value than the project sites. The commenter's concerns about the loss of the ruderal habitats on-site should be assuaged by the fact that more trees and shrubs will be planted on the project sites post-development than are currently on site, which will provide additional stopover opportunities for birds.

Finally, as previously mentioned, the Arroyo Mocho runs along the southern project site boundary of SMP 40. Arroyo Mocho may serve as a local movement corridor for mammals, amphibians, and reptiles to move unobtrusively through the general geographic area. Animals moving along Arroyo Mocho could leave the Arroyo and enter the project site to move across the landscape. Such animals expected to migrate along the Arroyo and possibly enter the upland areas of the project site are common species such as coyote, raccoons, skunks, deer, and rodents, and would be able to navigate their way around SMP 40 even after the site was developed. The Arroyo Mocho would remain unchanged by the proposed project and as such, the wildlife corridor values of the channel would remain intact. Under all circumstances, any disruption to the very localized use of the project sites by common wildlife species would not be regarded as a potentially significant impact pursuant to CEQA.

Traffic Impacts to Wildlife

Common wildlife associated with humans and urban development such as Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*) and raccoon (*Procyon lotor*) are often involved in vehicle collisions. However, the aforementioned species and other common wildlife species, including Mourning Dove (*Zenaida macroura*) and northern pacific rattlesnake (*Crotalus oreganus*), are not considered special-status or rare. In addition, while roadkill is present in the vicinity of the project sites, as is the case at any area with road traffic, the approximation included in Exhibit D of the comment letter is likely an overestimate, as the numbers are based on another study that is not directly comparable to the project area. Vasco Road is the principal north-south route between eastern Alameda and Contra Costa Counties, traveled by approximately 22,000 vehicles per day. Increased traffic to the project sites on local roadways, Isabel Avenue and West

Jack London Boulevard, is not comparable to the heavily trafficked Vasco Road, which is a corridor in the middle of hundreds of acres of protected open space lands and significant wildlife habitat. By contrast, Stanley Boulevard and I-580, near the project sites, are already heavily trafficked roads in a developed region and the increase in vehicles associated with the project sites would not contribute significantly to the existing traffic volumes on these roads daily. Moreover, regulations that protect common wildlife species that could be killed by vehicular traffic do not exist. As such, vehicle collisions that result in the mortality of wildlife do not constitute a significant impact pursuant to CEQA.

Western Burrowing Owl Mitigation

The CDFW has not released an official statement that the avian breeding season has changed. In M&A's experience, when permits are acquired from the CDFW, the nesting season window can vary slightly. Some permits say February 1 through August 31, while others say February 15 through September 1. The variation in start and end dates could be based on geography, as different geographic regions have slightly different nesting windows. In fact, the CDFW acknowledges a certain amount of variation in the 2012 CDFW Staff Report on Burrowing Owl Mitigation, which states, "In California, the burrowing owl breeding season extends from 1 February to 31 August (Haug et al. 1993, Thompsen 1971) with some variances by geographic location and climatic conditions." Nonetheless, in response to the comment, Mitigation Measure 4.3-2(a) included in the Draft EIR is hereby revised as follows:

Western Burrowing Owl

4.3-2(a) *If project construction begins during the western burrowing owl nesting season (February 1~~5~~ to August 31), a qualified biologist shall conduct targeted burrowing owl nest surveys within 14 days prior to construction activities using seven- to 20-foot transects. A separate preconstruction survey shall be conducted for SMP 39 and SMP 40 (including the off-site trail connection area) if the components of the project are not constructed concurrently. The survey shall include the project site and all accessible areas within 500 feet of the project impact zone, and shall follow CDFW guidelines outlined in the 2012 Staff Report on Burrowing Owl Mitigation. The results of the survey shall be submitted to the City of Livermore Community Development Department within 30 days of the completed survey. The survey report shall be valid for one construction season.*

If western burrowing owls are not detected on-site during the survey, further mitigation shall not be required. If any western burrowing owls are detected on-site, pursuant to the CDFW's 2012 Staff Report on Burrowing Owl Mitigation, the following restricted activity dates and setback distances shall be implemented:

- *From April 1 through October 15, low disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests.*
- *From April 1 through August 15, medium disturbance activities shall have a 500-meter buffer from occupied nests. Medium disturbance activities can have a reduced buffer of 200 meters starting August 16 through October 15.*
- *From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests.*
- *Earth-moving activities or other disturbance shall not occur within the aforementioned buffer zones of occupied burrows*

unless monitoring of the nest site by a qualified biologist determines that the owls are acclimated to the disturbance and would not be disturbed by a smaller buffer. The buffer zones shall be fenced.

- *A qualified biologist shall delineate the extent of burrowing owl habitat on the site.*
- *Owls may be passively relocated from the project site between October 1 and February 1. Passive removal shall be conducted by a qualified biologist with demonstrated experience with passive relocation.*
- *Credits shall be purchased from a mitigation bank in coordination with CDFW and the City of Livermore to offset the project's habitat loss on the burrowing owl.*

A report detailing compliance with the provisions set forth herein shall be prepared by the qualified biologist and submitted for review and approval to the City of Livermore Community Development Department.

Further, M&A biologists have conducted several surveys, some of which are dated October 2000; March 11, 2002; May 11 and 20, 2002; June 14 and 25, 2002; September 2003, November 2013, June 10, 2019, November 2019, September 10, 2021, November 13, 2021, and June 15, 2022. The aforementioned surveys conducted in May and June were focused Burrowing Owl breeding season surveys conducted in accordance with the CDFW 1995 Staff Report protocol. Burrowing owl, or signs of burrowing owl, were not observed during any of the M&A surveys. Thus, based upon M&A's multiple surveys of the project site spanning multiple years, evidence suggests that burrowing owls have not nested on-site for the following reasons: (1) the grass grows very tall on SMP 40 in between discing activities, which does not allow ground nesting birds, such as the burrowing owl, an opportunity to detect aerial predators, which likely discourages them from nesting; (2) discing activities may disrupt nesting attempts.

Based on habitat assessments and past negative survey results, M&A believes that burrowing owls are unlikely to nest on-site. However, given that the burrowing owl is a mobile species, a mitigation measure for preconstruction surveys was provided in the Draft EIR to ensure that "take" of burrowing owls does not occur. The prescribed preconstruction surveys, consistent with "take avoidance surveys" outlined in the CDFW's Staff Report 2012, are sufficient and appropriate to detect nesting owls should the species be present on-site in light of the prior surveys' negative results, including a year of protocol-level breeding season surveys. Burrowing owls residing in topographically flat areas are typically easy to detect if surveys consist of walking transects using high-powered binoculars. As such, the mitigation measure included in the Draft EIR is sufficient to reduce any potential project impacts on burrowing owl to a less-than-significant level.

Tricolored Blackbird Mitigation

As stated above, M&A biologists have been on both project sites multiple times over the last 20 years. Tricolored blackbirds have not been observed on-site and on-site habitat for the species is marginal, as the sites are routinely disturbed, water is not present on SMP 39, and Arroyo Mocho at SMP 40 is typically dry during the middle to end of the nesting season. The tricolored blackbird prefers nesting near water. The preconstruction surveys proposed in the Draft EIR to determine if tricolored blackbird is nesting on-site are sufficient to detect the species' presence. The species can also be looked for during the burrowing owl surveys, which will take place at the same time as tricolored blackbird nesting season.

Nesting Bird and Raptor Mitigation
As discussed above, the CDFW has not released an official statement that the avian breeding season has changed. In M&A's experience when permits are acquired from the CDFW, the nesting season window can vary slightly, as different geographic regions have slightly different nesting windows.

In addition, with regard to nest detection, while grassland nesting birds are difficult to detect, M&A biologists are experienced in surveying for ground-nesting and short grass nesting birds and have had success finding nests in the past. Typically, if pedestrian walking transect surveys are conducted by two or more people walking closely together, nests will be found. Further, if experienced consulting biologists are hired to conduct the nesting bird surveys, the biologists will know the appropriate methods to survey for nesting passerine birds, including the Loggerhead Shrike, and raptors. The most suitable habitat for Loggerhead Shrike on the project sites is along SMP 40's riparian corridor, which will be preserved by the project. Many trees along the riparian corridor and south of the project site could serve as a blind for the observer to hide behind and watch bird behavior to determine if birds are nesting. Finally, the qualified biologist making the nesting buffer determination would provide a report to the City of Livermore and communication between the City of Livermore, the applicant's biologist, and the construction team would be ongoing throughout the construction period. The biologist will ensure that the buffer is maintained throughout construction to ensure that the nesting attempt is protected.

While development does remove potential bird nesting habitat, the project applicant is avoiding the riparian corridor on the SMP 40 project site, which is the most valuable nesting habitat on-site. Additionally, in accordance with City of Livermore General Plan Policy OSC-1.3 P1, as presented on page 4.3-21 of the Draft EIR, the proposed project is required to landscape with native vegetation.

Based on the above, changes to the Draft EIR mitigation for nesting birds and raptors are not warranted.

<u>Comment II(C) Related to Construction Noise</u>
As discussed on page 4.6-21 of the Draft EIR, due to the substantial distance between SMP 39 and the sensitive noise receptors, it was anticipated, based on the professional judgment of the project noise consultant, that construction noise associated with SMP 39 would be below the City of Livermore's exterior noise level threshold at the nearest sensitive receptor locations. In response to the comments regarding construction noise impacts associated with SMP 39, Salter, the project noise consultant who prepared the project-specific Environmental Noise Studies used in the Draft EIR analysis, estimated the construction noise levels associated with SMP 39 at the nearest noise sensitive receptor to the site (see Attachment 2). In addition, in response to the comments regarding construction noise impacts associated with SMP 40, Salter provided an updated analysis of construction noise associated with SMP 40 (see Attachment 3). Because construction is not permitted during nighttime hours (pursuant to Section 9.36.080 of the Livermore Municipal Code), the applicable noise level threshold for construction noise levels associated with SMP 39 and SMP 40 would be 70 dBA L_{max}, as established by the City of Livermore (see Draft EIR page 4.6-14 and General Plan Policy N-1.5 P3).

The commenter alleges that Table 9-7, Land Use Compatibility Guidelines for Exterior Noise, of the General Plan applies to construction noise; this is not correct. As stated in General Plan Policy N-1.1 P4, presented on page 4.6-8 of the Draft EIR, the City shall use the Land Use Compatibility Guidelines for Exterior Noise (measured in dBA CNEL or L_{dn}) contained in Table 9-7 (i.e., the DNL 60 dBA exterior noise level standard referenced in the comment letter) to direct the siting, design, and insulation of new development to reduce exposure to excessive noise. Construction

noise standards are established in General Plan Policies N-1.5 P2, P3, and P4, as presented on page 4.6-12 of the Draft EIR, which do not include a DNL standard. In particular, General Plan Policy N-1.5 P3 states that in order to allow for temporary construction, demolition or maintenance noise and other necessary short-term noise events, the stationary noise standards in Policy N-1.5.P1 shall not be exceeded within the receiving land use by more than 15 dBA for any period of time. General Plan Policy N-1.5.P1 requires that industrial and commercial uses be designed and operated so as to avoid the generation of noise effects on surrounding sensitive land uses from exceeding 55 dBA L_{50} during the hours of 7:00 AM to 10:00 PM and 45 dBA L_{50} during the hours of 10:00 PM to 7:00 AM. Thus, for analysis purposes of project construction noise within the Draft EIR, the threshold of significance for the maximum allowable construction noise level at a sensitive receptor is 70 dB L_{max} during daytime hours and 60 dB L_{max} during nighttime hours (i.e., 15 dB above the numerical criteria listed in P1). Consequently, the DNL 60 dBA exterior noise level standard included in the comment letter would not apply to the temporary, intermittent construction noise associated with either SMP 39 or SMP 40.

Based on the comments regarding construction noise impacts associated with SMP 39 and SMP 40, pages 4.6-21 through 4.6-24 of the Draft EIR are hereby revised as follows. Such revisions are also reflected in the Revised Environmental Noise Studies for SMP 39 and SMP 40, included as Attachment 2 and Attachment 3 to this memo. It should be noted that all revisions to pages 4.6-22 through 4.6-24 of the Draft EIR previously included in the Final EIR are also shown in ~~strikethrough~~ and <u>double underlined</u> text below.

> ~~Due to the substantial distance between SMP 39 and the sensitive noise receptors, it was anticipated that~~ <u>The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction. Table 4.6-6 shows maximum noise levels associated with each piece of construction equipment anticipated to be used during construction of SMP 39 at a reference level of 50 feet, as well as at 2,640 feet, which is the distance from Building 1 on the SMP 39 site to the nearest sensitive receptors (the residences located across Isabel Avenue to the east). Based on the project-specific construction schedule assumed in the air quality analysis conducted for SMP 39, Table 4.6-7 summarizes the anticipated construction equipment associated with each phase of project construction, and the relative sound levels at the nearest residential property (approximately 2,640 feet away), assuming that equipment is running simultaneously during each phase of construction. As shown in Table 4.6-7,</u> construction noise associated with SMP 39 <u>would range between 59 and 61 dBA L_{max},</u> ~~be~~ <u>which would be</u> below the City of Livermore's exterior noise level threshold of ~~60~~ <u>70</u> dBA ~~DNL~~ <u>L_{max}</u> at the nearest sensitive receptor locations. ~~Thus, construction noise levels for SMP 39 were not evaluated as part of the Environmental Noise Study prepared for SMP 39. Therefore, the following discussion focuses on SMP 40 and the off-site trail connections.~~

Table 4.6-6
Typical Construction Equipment Noise at SMP 39

Equipment	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 50 feet)	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 2,640 feet)
Aerial Lift	83	49
Air Compressors	81	47
Cement and Mortar Mixers	85	51
Concrete/Industrial Saws	76	42
Cranes	83	49
Drill Rig of Shoring Beams (Caisson Drilling)	85	51
Excavators	85	51
Forklifts	83	49
Generator Sets	81	47
Graders	85	51
Paving Equipment	89	55
Rollers	74	40
Rubber-Tired Dozers	85	51
Tractors/Welders/Backhoes	84	50
Welders	73	39

Source: Salter, 2024.

Table 4.6-7
Construction Equipment Noise Levels at Nearest Receptor – SMP 39

Offroad Equipment Type	Amount	Usage Hours	Resulting L_{max}
Grading			
Excavators	2	8	54
Graders	1	8	51
Rubber Tired Dozers	1	8	51
Scrapers	2	8	54
Tractors/ Loaders/ Backhoes	2	8	53
All Grading Equipment Running Simultaneously			**60**
Paving			
Pavers	2	8	58
Paving Equipment	2	8	58
Rollers	2	8	43
All Paving Equipment Running Simultaneously			**61**
Building Construction			
Cranes	1	7	49
Forklifts	3	8	54
Generator Sets	1	8	47
Tractors/ Loaders/ Backhoes	3	7	56
Welders	1	8	39
All Building Construction Equipment Running Simultaneously			**59**
Architectural Coating			
Air Compressors	1	8	47

Source: Salter, 2024.

~~The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction.~~ Table 4.6-~~6~~ 8 shows maximum noise levels associated with ~~typical~~ each piece of construction equipment anticipated to be used during construction of SMP 40 at a reference level of 50 feet, as well as at ~~884~~ 600 feet, which is the distance from the ~~proposed Building~~

~~2 on~~ northeast corner of the SMP 40 site to the nearest residences across Isabel Avenue/SR 84. Based on the project-specific construction schedule assumed in the air quality analysis conducted for SMP 40, Table 4.6-9 summarizes the anticipated construction equipment associated with each phase of project construction, and the relative sound levels at the nearest residential property (approximately 600 feet away), assuming that equipment is running simultaneously during each phase of construction.

Table 4.6-~~6~~ 8
Typical Construction Equipment Noise at SMP 40

Equipment	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 50 feet)	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at ~~884~~ 600 feet)
~~Demolition~~		
Concrete/Industrial Saw	76	~~19~~ 54
Excavators	85	~~28~~ 63
Rubber-Tired Dozer	85	~~28~~ 63
Tractor/Loader/Backhoe	84	~~27~~62
~~Site Preparation~~		
Grader	85	~~28~~ 63
~~Rubber-Tired Dozer~~	~~85~~	~~28~~
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~
~~Grading/Excavation~~		
Drill Rig for Shoring Beams (Caisson Drilling)	85	~~28~~ 63
~~Excavators~~	~~85~~	~~28~~
~~Rubber-Tired Dozer~~	~~85~~	~~28~~
~~Tractor/Loader/ Backhoe~~	~~84~~	~~27~~
~~Trenching~~		
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~
~~Excavators~~	~~85~~	~~28~~
~~Building Exterior Construction~~		
Crane	83	~~26~~ 61
Fork Lift	83	~~26~~ 61
Generator Sets	81	~~24~~ 59
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~
Welders	73	~~16~~ 51
~~Building Interior Construction/Architectural Coating~~		
Aerial Lift	83	~~26~~ 61
Air Compressors	81	~~24~~ 59
~~Paving/Landscaping/Site Concrete~~		
Cement and Mortar Mixers	85	~~28~~ 63
Paving Equipment	89	~~32~~ 67
Rollers	74	~~17~~ 52
~~Tractor/Loader/Backhoe~~	~~84~~	~~27~~

Source: Salter, ~~2023~~ 2024.

Table 4.6-9
Construction Equipment Noise Levels at Nearest Receptor – SMP 40

Offroad Equipment Type	Amount	Usage Hours	Resulting L_{max}
Grading			
Excavators	2	8	66
Graders	1	8	63
Rubber Tired Dozers	1	8	63
Scrapers	2	8	66
Tractors/ Loaders/ Backhoes	2	8	65
All Grading Equipment Running Simultaneously			**72**
Paving			
Pavers	2	8	70
Paving Equipment	2	8	70
Rollers	2	8	55
All Paving Equipment Running Simultaneously			**73**
Building Construction			
Cranes	1	7	61
Forklifts	3	8	66
Generator Sets	1	8	59
Tractors/ Loaders/ Backhoes	3	7	67
Welders	1	8	51
All Building Construction Equipment Running Simultaneously			**70**
Architectural Coating			
Air Compressors	1	8	59

Source: Salter, 2024.

As shown in ~~the table~~ Table 4.6-7, construction of SMP 40 is predicted to generate noise levels ranging between ~~16~~ 70 to ~~32~~ 73 dBA L_{max} at the nearest noise-sensitive receptors. As discussed in detail above, for analysis purposes of project construction noise within this EIR, a threshold of significance for the maximum allowable construction noise level at a sensitive receptor has been assumed to be 70 dB L_{max} during daytime hours ~~and 60 dB L_{max} during nighttime hours~~. Because construction is not permitted during nighttime hours (pursuant to Section 9.36.080 of the Livermore Municipal Code), the 60 dB L_{max} noise level standard for nighttime hours would not apply to the proposed project. ~~Accordingly~~ Nonetheless, the maximum predicted construction noise level of ~~32~~ 73 dBA L_{max} associated with SMP 40 would be ~~below~~ above the threshold~~s~~ of significance being applied.

The three potential off-site trail connection options would be located approximately 160 feet, 150 feet, and 200 feet, respectively, west of the nearest single-family residences. The anticipated construction activities required for the trail connection options would use construction equipment anticipated to generate maximum noise levels of up to 85 dB at a distance of 50 feet. As previously noted, stationary noise sources lessen at a rate of approximately six dB per doubling of distance from the source. Therefore, at a distance of 160 feet, construction equipment associated with Trail Connection Option 1 would generate maximum noise levels of up to 75 dB L_{max}; at a distance of 150 feet, construction equipment associated with Trail Connection Option 2 would generate maximum noise levels of up to 76 dB L_{max}; and at a distance of 200 feet, construction equipment associated with Trail Connection Option 3 would generate maximum noise levels of up to 73 dB L_{max}. Thus, construction activities associated with development of the off-site trail connection options would exceed the thresholds of significance being applied of 70 dB L_{max} during daytime hours ~~and 60 dB L_{max} during nighttime hours~~.

Based on the above, construction-related noise associated with SMP 39 ~~and SMP 40~~ would not result in the generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local

general plan or noise ordinance, or applicable standards of other agencies. However, while construction activities are temporary in nature and would be exempt during the hours of 7:00 AM to 8:00 PM, construction-related noise associated with SMP 40 and the off-site trail connection could result in disturbance to existing noise-sensitive land uses in the project vicinity.

Therefore, construction-related noise associated with the proposed project could be considered to result in generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and impacts would be considered ***significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.6-1(a) *Prior to issuance of a grading permit for SMP 40, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included within the plans and specifications for SMP 40, subject to review and approval by the City of Livermore Community Development Department. The project applicant shall demonstrate, to the satisfaction of the City that the project complies with the following:*

- *Consistent with the Livermore Municipal Code, construction shall be limited to weekdays between the hours of 7:00 AM and 8:00 PM and Saturdays through Sunday between the hours of 9:00 AM and 6:00 PM.*
- *Either a temporary noise barrier shall be built prior to development of the planned berm on the east side of the project site, or the berm shall be built prior to construction activities. The barrier/berm shall be a minimum of 10 feet tall. The barrier can be field-built provided it meets the following criteria:*
  - *The barrier shall be constructed to have a minimum surface density of four pounds per square foot (psf). For example, a stud wall with exterior-grade plywood sheathing and a stucco finish (or two layers of 5/8-inch thick plywood).*
  - *The barrier shall be free of cracks, and drainage holes/slots along the bottom of the barrier shall be kept to a minimum. Where needed, drainage holes/slots shall be covered by one psf mass-loaded vinyl flaps (e.g., Kinetics KNM-100) so water can flow around the vinyl and still drain.*
  - *Joints between sheathing layers shall be offset by 16 inches minimum.*
- *Contractors shall use "quiet" models of air compressors and other stationary noise sources, where technology exists.*
- *Internal combustion engine-driven equipment shall be equipped with mufflers which are in good condition and appropriate for the equipment.*
- *Stationary noise-generating equipment, such as air compressors and portable power generators, shall be located as far away as possible from adjacent property lines.*

- *Staging areas and construction material areas shall be located as far away as feasible from adjacent residences.*
- *All unnecessary idling of internal combustion engines should be prohibited.*
- *The contractor shall designate a "noise disturbance construction superintendent" who will be responsible for tracking and responding to any complaints about construction noise. The noise disturbance construction superintendent shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall require that reasonable measures are implemented to correct the problem. The telephone number for the noise disturbance construction superintendent shall be posted at the construction site and included in any construction notices sent to neighbors.*

4.6-1(b) *Prior to issuance of a grading permit for the chosen off-site trail connection option, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included within the plans and specifications for the trail connection option, subject to review and approval by the City of Livermore Community Development Department. The project applicant shall demonstrate, to the satisfaction of the City that the project complies with the following:*

- *All heavy construction equipment used on the proposed project shall be maintained in good operating condition, with all internal combustion, engine-driven equipment fitted with intake and exhaust mufflers that are in good condition.*
- *All mobile or fixed noise producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency shall comply with such regulations while ~~in the source of~~ involved with a project activity.*
- *Where feasible, electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment.*
- *All stationary noise-generating equipment shall be located as far away as possible from the nearest residential uses.*
- *Signs prohibiting unnecessary idling of internal combustion engines shall be posted at entrances to construction sites and at construction equipment staging areas.*
- *The use of noise-producing signals, including horns, whistles, alarms and bells shall be for safety warning purposes only.*
- *The use of temporary sound barriers shall be incorporated along the outer work area of the construction site, east of Isabel Avenue/SR 84. Barrier height and location(s) shall be determined by a qualified acoustical engineer to ensure that the resultant construction noise levels at the nearest residence would meet the applicable standard. The sound barrier fencing shall consist of 0.5-inch plywood or minimum STC 27 sound curtains placed to shield nearby sensitive receptors. The plywood barrier shall be free from gaps, openings, or penetrations to ensure maximum performance.*

Due to the addition of Table 4.6-7, all subsequent tables included in Chapter 4.6, Noise, of the Draft EIR are hereby renumbered accordingly.

While a new mitigation measure (Mitigation Measure 4.6-1[a]) has been added as part of the text revisions above, under *Laurel Heights Improvement Ass'n v Regents of Univ. of Cal.* (1993) 6 C4th 1112 (*Laurel Heights II*) and Section 15088.5 of the State CEQA Guidelines,[2] a lead agency is only required to recirculate a draft EIR when "significant new information" is added to the document after public notice is given of the availability of the Draft EIR for public review under Section 15087 but before certification. Pursuant to CEQA Guidelines Section 15088.5, the term "information" can include changes in the project or environmental setting, as well as additional data or other information. New information added to an EIR is not considered "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the City has decided not to implement. "Significant new information" requiring recirculation includes any of the following:

1. A new significant environmental impact would result from the project or for a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from other previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
4. The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

In the case of the proposed project, the Draft EIR already determined that the proposed project would result in a significant temporary construction noise impact (see page 4.6-23 of the Draft EIR). Thus, a new noise impact has not been identified in response to public comments. Rather, in response to public comments, a new construction noise mitigation measure (Mitigation Measure 4.6-1[a]) has been added that would clearly lessen the potential environmental impact to a less-than-significant level, and the applicant has agreed to adopt Mitigation Measure 4.6-1(a). In addition, the requirements of Mitigation Measure 4.6-1(a) are similar to the requirements already included in Mitigation Measure 4.6-1 of the Draft EIR. Thus, according to Section 15188.5(a)(3), recirculation is not required.

The Mitigation Monitoring and Reporting Program, as well as the Findings, Facts in Support Of Findings, and Statement Of Overriding Considerations, will be updated in accordance with the changes shown above and included in the staff report packet for the City Council hearing on the proposed project.

Attachments
Attachment 1 – Attorneys for Carpenters Local 713 Comment Letter
Attachment 2 – SMP 39 Revised Environmental Noise Study
Attachment 3 – SMP 40 Revised Environmental Noise Study

[2] Stephen L. Kostka and Michael H. Zischke. *Practice Under the California Environmental Quality Act, Second Edition, March 2022 Update, Volume 2*. March 2022, pg. 16-21.

Golden State Environmental Justice Alliance
Green Jobs & Clean Communities
P.O. Box 79222
Corona, CA 92877

To: City of Livermore Planning Commission

From: Golden State Environmental Justice Alliance

Subject: SMP 38/39/40 Project EIR

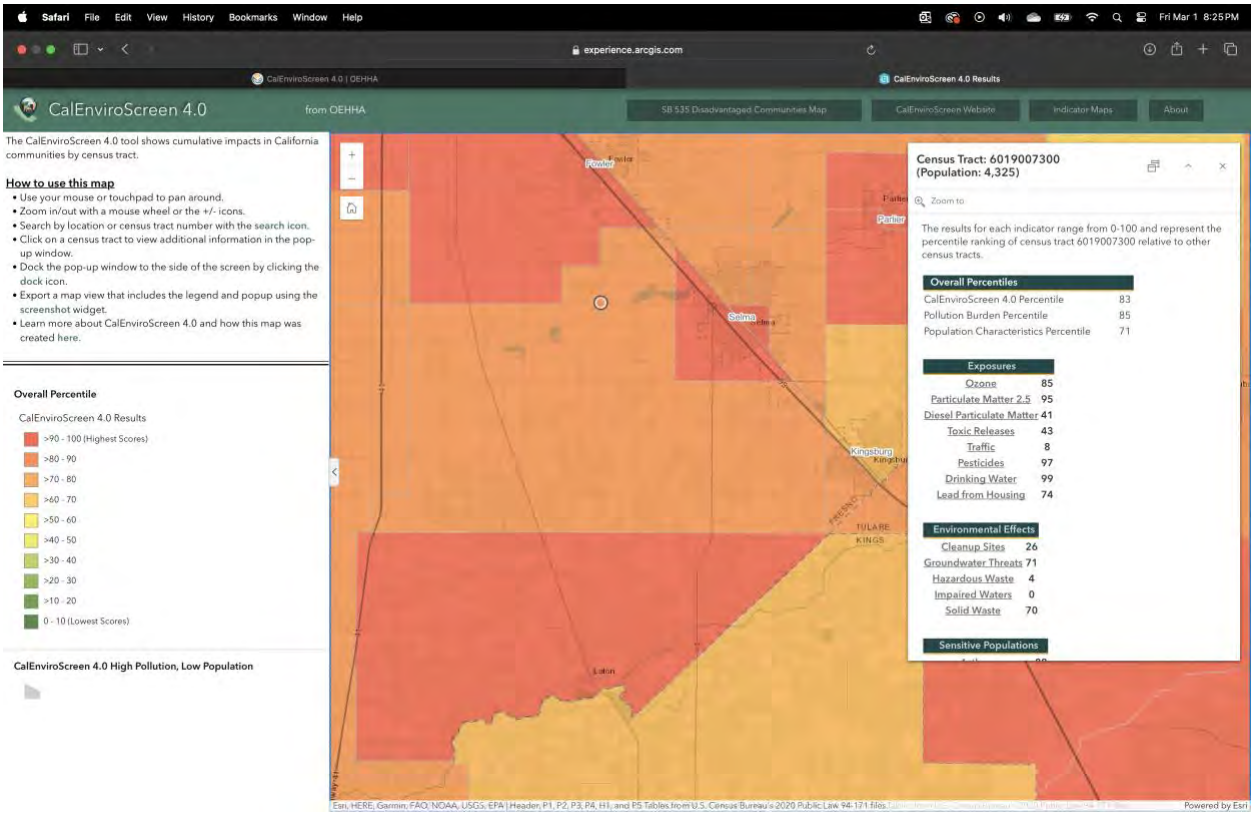
This letter is to serve as further comment in addition to all previously submitted comments and documents by Golden State Environmental Justice Alliance.

CalEnviroScreen Information

CalEnviroScreen is a mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects. CalEnviroScreen uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. The scores are mapped so that different communities can be compared. An area with a high score is one that experiences a much higher pollution burden than areas with low scores. CalEnviroScreen ranks communities based on data that are available from state and federal government sources. CalEnviroScreen is updated and maintained by The Office of Environmental Health Hazard Assessment, on behalf ofthe California Environmental Protection Agency.

CalEnviroScreen Data on : SMP 38/39/40 EIR Project Location/Area

The above listed project is in census tract **(6001451300)**. Overall, when compared to other census tracts, the project site census tract is in the 83rd percentile regarding pollution. As far as pollution burden is concerned, this census tract is in the 85th percentile. In terms of Ozone, this census tract is in the 85th percentile, Particulate Matter 2.5 98th percentile, Diesel Particulate Matter 41st percentile, Toxic Releases 43rd percentile and Traffic 8th percentile to name a few.



Conclusion

Consider the above referenced information when making this important decision. Realize that you and the citizens of this area face some of the WORST POLLUTION in the entire state of California.

It is the responsibility of the City's elected and appointed officials to make environmentally responsible development decisions. Based on the CalEnviroScreen data, this is more than sufficient evidence of the further air quality impacts that the citizenry of Livermore will continue to encounter with further development of another warehouse. We are not against development, as we believe it is necessary for further economic growth in our current society. Development needs to be conducted with the highest of expectations to ensure the local population does not suffer further air quality burdens.

We stand by our comments and believe the EIR is flawed and should be redrafted and recirculated for public review.

Respectfully Submitted,

Pete Sheehan

Pete Sheehan

GSEJA

Source -
https://experience.arcgis.com/experience/4af93cf9888a424481d2868391af2d82/page/home/?data_id=dataSource_2-1754d6afdb4-layer-9%3A7306

Glossary of Terms

Ozone - Amount of daily maximum 8-hour Ozone concentration

Particulate Matter 2.5 - Annual mean PM 2.5 concentrations

Diesel Particulate Matter - Diesel PM emissions from on-road and non-road sources

Toxic Releases - Toxicity-weighted concentrations of modeled chemical releases to air from
facility emissions and off-site incineration.

Traffic -Traffic density, in vehicle-kilometers per hour per road length, within 150 meters of the census tract boundary.

Allen Matkins

Allen Matkins Leck Gamble Mallory & Natsis LLP
Attorneys at Law
865 South Figueroa Street, Suite 2800 | Los Angeles, CA 90017-2543
Telephone: 213.622.5555 | Facsimile: 213.620.8816
www.allenmatkins.com

Margaret R. Akerblom
E-mail: makerblom@allenmatkins.com
Direct Dial: 213.955.5623 File Number: 394720.00001/4876-3208-5931.3

Via Electronic Mail

March 5, 2024

Planning Commission
City of Livermore
1016 S. Livermore Ave.
Livermore, CA 94550

Re: Public Comment on SMP-39 and SMP-40 Project
Planning Commission Meeting March 5, 2024

Planning Commission of the City of Livermore:

We represent El Charro Spur LLC, which owns the approximately 69-acre parcel ("**ECS Property**") directly south of and abutting the SMP-40 property, which is the subject of the proposed SMP-39 and SMP-40 project before the Planning Commission on March 5, 2024. On behalf of El Charro Spur LLC, we submit this public comment regarding the SMP-39/SMP-40 project. As explained in more detail below, the SMP-39/SMP-40 project proposes in part to construct a public trail along the Arroyo Mocho that will create a significant health and safety hazard that was not acknowledged or studied in the project's Environmental Impact Report (SCH# 2023010091) ("**EIR**") nor addressed in the project's conditions of approval.

Enclosed with this letter is a copy of Exhibit C to the proposed Development Agreement for SMP-40, which we have annotated for illustrative purposes. Exhibit C depicts that the SMP-39/SMP-40 project will include construction of a public trail running along the southern and western property lines of the SMP-40 property. This proposed public trail on the SMP-40 property proposes to continue at the southeast corner of the SMP-40 property onto the Alameda County Flood Control and Water Conservation District (Zone 7) property abutting the SMP-40 property's eastern property line, proceeding northeasterly, along the course of Zone 7's present maintenance road, which is not currently accessible to the public. Evidently, the proposal entails opening the Zone 7 maintenance road for the public's use as a trail. The proposed public trail would follow the course of the Arroyo Mocho, which passes through the Zone 7 property and along the northern edge of the ECS Property.

Exhibit C indicates that a chain link fence will be constructed along the northern and southern edges of the trail segment on the SMP-40 property. When the trail reaches the Zone 7 property, the northerly fence will connect to an existing Zone 7 fence that lies north of the

maintenance road. However, Exhibit C shows that the southerly fence will simply end at the Zone 7 property. This means that, if the path is constructed as shown in Exhibit C, members of the public using the trail would be able to simply leave the Zone 7 portion of the proposed path and enter the Arroyo Mocho which is immediately adjacent south of the path, without restriction. This in turn would permit members of the public to head west through the Arroyo Mocho onto El Charro Spur's private property without restriction, and further west, access the active mining operations of Vulcan Materials on the properties north and west of the ECS Property. The public cannot currently access these areas because the Zone 7 property, and maintenance road, are fenced off. The annotations on Exhibit C that we have added are intended to show the locations of the ECS Property, Zone 7 property, and mining properties.

Providing the public unfettered direct access to the Arroyo Mocho, private property and an active mining operation, both in the dry months and in the rainy season when it regularly carries high water volumes, are health and safety hazards that must be considered as part of the SMP-39/SMP-40 project. However, the EIR does not address the fact that the proposed trail may be creating this dangerous public safety hazard. The EIR discusses the potential routes for the trail (see, e.g., EIR p. 3-22), but it does not analyze the risk posed by providing public access to the Arroyo Mocho and mining properties to the west nor what safety features the trail would have, such as fencing, to protect members of the public using it. The SMP-40 Development Agreement and the SMP-39/SMP-40 project conditions of approval also do not address how this safety issue will be mitigated. At minimum, the conditions of approval should require the project applicant to work with Zone 7 to ensure that a fence is constructed on the Zone 7 property south of the trail so that the fence south of the path on the SMP-40 property can connect to it. The ECS Property owner and the owner of the mining properties cannot themselves block access to their properties from the proposed public path because they cannot construct obstructions within the Arroyo Mocho. That is why public access must be contained continuously along the path on the Zone 7 property.

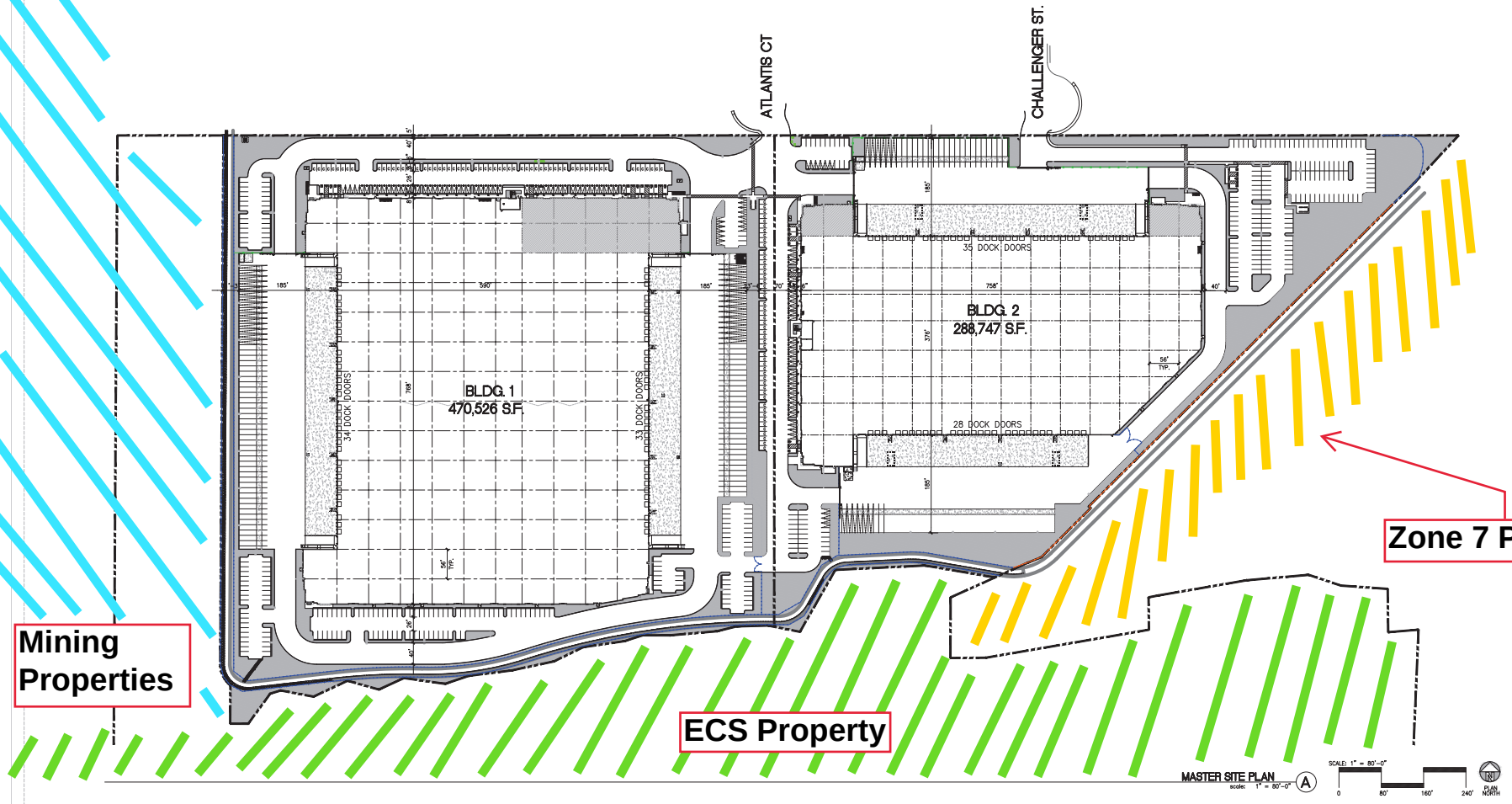
We ask that the Planning Commission consider the safety issues raised by this letter when evaluating the SMP-39/SMP-40 project and recommend appropriate conditions and mitigation measures to address them.

Regards,

Margaret R. Akerblom

MRA
Enclosure

EXHIBIT E



NEW METAL FENCE AND GATE

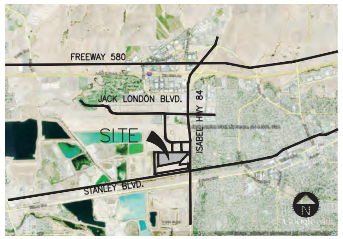
EXISTING CHAIN LINK FENCE

NEW CHAIN LINK FENCE AND GATE

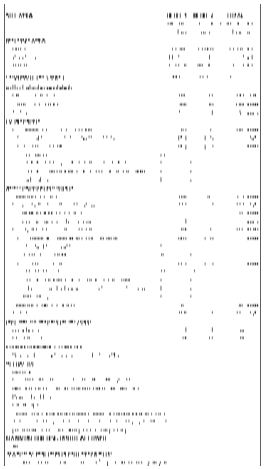
SITE PLAN GENERAL NOTES

- CONCRETE PAVING, SEE "C" DRWGS. FOR THICKNESS
- STANDARD PARKING STALL 9' X 18' (16' WITH 2' OVERHANG)
- STANDARD PARKING STALL W/ EVCS INSTALLED
- STANDARD PARKING STALL W/ CONDUITS ONLY
- TRAILER PARKING (10' X 53')
- TRAILER PARKING W/ CONDUITS ONLY
- LANDSCAPED AREA
- NON-ACCESSIBLE PATH
- COMPACT PARKING STALL 9' X 16' (14' WITH 2' OVERHANG)
- ACCESSIBLE PARKING STALL (9' X 18') ACCESSIBLE AISLE SEE DETAIL 11/AD.1
- ACCESSIBLE PARKING (VAN) STALL (9' X 18') + 8' W/ ACCESSIBLE AISLE
- PATH OF TRAVEL. MINIMUM WIDTH TO BE 4', SLOPE NOT TO EXCEED 5% IN THE DIRECTION OF TRAVEL AND CROSS SLOPE NOT TO EXCEED 2%, SEE CIVIL FOR GRADING PLAN

VICINITY MAP



PROJECT DATA



HPA architecture

hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK BUILDING 1

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	4STEL
MECHANICAL	ACIES
PLUMBING	ACIES
ELECTRICAL	ACIES
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: MASTER SITE PLAN

Project Number: 19177
Drawn by: DZ
Date: 11/21/2023
Revision:

Sheet: A1.0

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION APPROVING GENERAL PLAN AMENDMENT (GPA) 21-001, VESTING TENTATIVE PARCEL MAP (SUB) 21-008, VESTING TENTATIVE TRACT MAP (SUB) 21-009, SITE PLAN DESIGN REVIEW (SPDR) 21-008, SUBJECT TO THE CONDITIONS OF APPROVAL, FOR THE SMP 39/SMP 40 PROJECT

The City of Livermore ("City") received applications General Plan Amendment (GPA) 21-001, Annexation/Prezoning (APZ) 21-003, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, Site Plan Design Review (SPDR) 21-008, Pre-annexation and Development Agreement (DA) 21-001, and Pre-annexation and Development Agreement (DA) 23-002 for the SMP 39/SMP 40 Project ("Project") to develop approximately 1.51 million square feet of industrial development and associated parking, lighting, landscaping, and other improvements.

At a duly noticed public hearing on March 5, 2024, the Planning Commission considered the Project and staff recommendation, heard public testimony, made the necessary findings and adopted Planning Commission Resolution No. 03-34, attached hereto as Exhibit A, containing the Planning Commission's actions and/or recommendations thereon.

On March 25, 2024, the City Council held a duly noticed public hearing to consider the Project, Planning Commission and staff recommendations, all public comments and testimony, and findings.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore that prior to taking action on the Project, and at a properly noticed public hearing, the City Council reviewed written and oral staff reports, conducted a public hearing on the Project and took testimony, and received into the record all pertinent documents related to the Project (collectively, the "Record Evidence"). The City Council's determination is based on the Record Evidence, which is incorporated into this Resolution by reference.

BE IT FURTHER RESOLVED that the City Council of the City of Livermore has considered the Record Evidence and adopted a resolution certifying a Final Environmental Impact Report.

BE IT FURTHER RESOLVED that the City Council of the City of Livermore has considered the findings made in Planning Commission Resolution No. 03-24, attached hereto as Exhibit A, and the City Council hereby adopts the same findings by this reference and incorporates them as their own findings as part of this resolution. Based upon the City Council's own independent review of the Record Evidence and considerations, the City Council hereby approves General Plan Amendment (GPA) 21-

001, attached hereto as Exhibit B, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008, subject to the Conditions of Approval, attached hereto as Exhibit C, for the SMP 39/SMP 40 Project.

BE IT FURTHER RESOLVED that the City Council of the City of Livermore directs the Planning Manager to file a Notice of Determination with the Alameda County Clerk.

The documents that constitute the record of proceedings upon which this decision is based can be found in the City Clerk's Office, 1052 S. Livermore Avenue, in Livermore California.

On motion of Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted on March 25, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

ATTEST:

_____
Deborah L. Elam
Acting City Clerk

APPROVED AS TO FORM:

/s/ Kimberly D. Cilley
Kimberly D. Cilley
Senior Assistant City Attorney

Exhibit A – Planning Commission Resolution No. 03-24
Exhibit B – General Plan Amendment (GPA) 21-001
Exhibit C – Conditions of Approval

IN THE PLANNING COMMISSION OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION RECOMMENDING THAT THE CITY COUNCIL APPROVE GENERAL PLAN AMENDMENT (GPA) 21-001, ANNEXATION/PREZONING (APZ) 21-003, ZONING MAP AMENDMENT (ZMA) 21-002, PLANNED DEVELOPMENT-INDUSTRIAL (PD-I) 22-001, DEVELOPMENT CODE AMENDMENT (DCA) 21-005, VESTING TENTATIVE PARCEL MAP (SUB) 21-008, VESTING TENTATIVE TRACT MAP (SUB) 21-009, SITE PLAN DESIGN REVIEW (SPDR) 21-008, PRE-ANNEXATION AND DEVELOPMENT AGREEMENT (DA) 21-001, AND PRE-ANNEXATION AND DEVELOPMENT AGREEMENT (DA) 23-002 FOR THE SMP 39/SMP 40 PROJECT

The City received an application General Plan Amendment (GPA) 21-001, Annexation/Prezoning (APZ) 21-003, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, Site Plan Design Review (SPDR) 21-008, Pre-annexation and Development Agreement (DA) 21-001, and Pre-annexation and Development Agreement (DA) 23-002 for the SMP 39/SMP 40 Project ("Project") to develop approximately 1.51 million square feet of industrial development and associated parking, lighting, landscaping, and other improvements.

On March 5, 2024, the Planning commission held a duly noticed public hearing to consider the Project and staff recommendations, all public comments and testimony, and findings.

NOW, THEREFORE, BE IT RESOLVED, by the Planning Commission of the City of Livermore that prior to taking action on the Project, and at a properly noticed public meeting, the Planning Commission reviewed written and oral staff reports, conducted a public hearing on the Project and took testimony, and received into the record all pertinent documents related to the Project (collectively, the "Record Evidence"). The Planning Commission's determination is based on the Record Evidence, which is incorporated into this Resolution by reference.

BE IT FURTHER RESOLVED with respect to General Plan Amendment (GPA) 21-003 (attached hereto as Exhibit A) the Planning Commission of the City of Livermore finds based on the information presented:

1. The amendment is internally consistent with all other provisions of the General Plan.

   Response: The General Plan currently designates the SMP 39, SMP 40, and the Additional Annexation Only Parcels as Open Space/Sand and Gravel (OSP/S&G) and is adjacent to land designated by the General Plan as Low-Intensity Industrial (LII). The Project proposes to modify the General Plan designation for SMP 39 and SMP 40 to LII to permit light industrial development and the Additional Annexation Only Parcels to Parks, Trailways, and Recreation Areas (OSP). Development is not proposed on the Additional Annexation Only Parcels and the OSP designation is

consistent with the parcels' natural features and attributes, including their proximity to Arroyo Mocho. The change to a LII land use designation for the site supports and implements the General Plan and will be compatible with the existing and adjacent industrial uses in the Oaks Business Park and Livermore Municipal Airport, maximizing the use of existing public streets, services, and facilities. Therefore, the proposed changes are internally consistent with all other provisions of the General Plan.

2. The proposed amendment will not be detrimental to the public interest, health, safety, convenience, or welfare of the City.

   Response: The proposed General Plan Amendment will enable SMP 39 and SMP 40 to be developed with light industrial uses and achieve the General Plan Goals, Objectives, and Policies to focus light industrial uses around the Livermore Municipal Airport. In addition, the development will not include objectionable levels of noise, vibration, odors, glare, or hazard that would create a nuisance for surrounding uses. Planned Development – Industrial (PD-I) 22-001 zoning will implement the General Plan land use designation through use restrictions and development standards to ensure orderly and thoughtful development of the site with respect to the site's location and physical characteristics. Development is not proposed on the Additional Annexation Only Parcels. The Additional Annexation Only Parcels will be designated as OSP designation and rezoned to Open Space – Floodplain which is consistent with the parcels' natural features and attributes, including their proximity to Arroyo Mocho.

   In addition, the Project, including the necessary General Plan and Zoning amendments, was analyzed in conformance with the California Environmental Quality Act (CEQA) and found to have no adverse effect on the environment with mitigation incorporated, with the exception of converting agricultural land to non-agricultural uses as defined by the Alameda County Local Agency Formation Commission. However, the California Department of Conservation's Farmland Mapping and Monitoring Program does not classify the project site as Farmland. Therefore, the proposed amendment would not be detrimental to the public interest, health, safety, convenience, or welfare of the City.

3. The affected site is physically suitable in terms of design, location, shape, size, operating characteristics, and the provision of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment, and disposal, etc.), to ensure that the proposed or anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

   Response: Based on the plans and specifications provided by the Developer and reviewed by City staff, the SMP 39 and SMP 40 sites are physically suitable to

accommodate the industrial land use designation at the proposed intensity. In addition, the Project, including the necessary General Plan and Zoning Map Amendments, was analyzed in conformance with the California Environmental Quality Act (CEQA), which found the site was suitable in terms of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment and disposal, etc.). The proposed land use designation and the anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

BE IT FURTHER RESOLVED with respect to Annexation/Prezoning (APZ 21-003), Development Code Amendment (DCA) 21-005, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001 (attached hereto as Exhibits B and C) the Planning Commission of the City of Livermore finds based on the information presented:

1. The proposed amendment is consistent with the General Plan and any applicable Specific Plan.

   Response: The SMP 39 and SMP 40 properties will be prezoned to PD-I 22-001, which is consistent with the proposed General Plan land use designation of LII. The zone will be similar to the adjacent existing industrial uses and developed in compliance the PD-I 22-001 and Livermore Development Code standards. In addition, the Additional Annexation Only Parcels will be prezoned to OS-F zone, which is consistent with the proposed General Plan land use designation of OSP.

2. The proposed amendment will not be detrimental to the public interest, health, safety, convenience, or welfare of the City.

   Response: Based on staff analysis contained in the Planning Commission staff report and the SMP 39/SMP 40 EIR, there is no evidence that approval of the Zoning Map Amendment will be detrimental to the public interest, health, safety, convenience, or welfare of the City.

3. The proposed amendment is internally consistent with other applicable provisions of this Development Code.

   Response: The proposed Zoning Map Amendment would prezone SMP 39 and SMP 40 to PD-I 22-001 and prezone the Additional Annexation Only Parcels to OS-F. Prezoning is required prior to annexation of territory into the City. Therefore, the proposed amendment is consistent with all other applicable provisions of the Development Code.

4. The affected site is physically suitable in terms of design, location, shape, size, operating characteristics, and the provision of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm

drainage, wastewater collection, treatment, and disposal, etc.), to ensure that the requested zone designation and the proposed or anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

Response: Based on the plans and specifications provided by the Developer and reviewed by City staff, the SMP 39 and SMP 40 sites are physically suitable to accommodate the industrial land use designation at the proposed intensity. In addition, the Project, including the necessary General Plan and Zoning Map Amendments, was analyzed in conformance with the California Environmental Quality Act (CEQA), which found the site was suitable in terms of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment and disposal, etc.). The proposed land use designation and the anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

BE IT FURTHER RESOLVED with respect to the Vesting Tentative Parcel Map (SUB) 21-008 and Vesting Tentative Tract Map (SUB) 21-009 the Planning Commission of the City of Livermore finds based on the information presented:

1. The proposed map is consistent with the General Plan and any applicable specific plan, any policy or guideline implementing the General Plan (including the City's Design Standards and Guidelines), or other applicable provisions of this Development Code.

   Response: The Vesting Tentative Parcel Map and Vesting Tentative Tract Map were submitted with applications for a General Plan Amendment and Zoning Map Amendments (Annexation/Prezoning). Based on the approvals to change the General Plan land use designation to an industrial use and the proposed PD-I 22-001 zone, the proposed maps are consistent with the General Plan and the Development Code.

2. The site is physically suitable for the proposed type of development.

   Response: The development of approximately 1.51 million square feet of industrial development is consistent with the Low Intensity General Plan land uses, PD-I 22-001 zoning, and the Livermore Development Code, which confirms the proposed intensity and type of development are suitable for the site.

3. The design of the subdivision or the proposed improvements will not cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat. Notwithstanding the foregoing, the Commission or Council may approve a tentative map if an Environmental Impact Report was prepared with respect to the project and a statement of overriding considerations was made to the effect that specific economic, social, or other considerations make infeasible the

mitigation measures or project alternatives identified in the Environmental Impact Report.

Response: The project involves the development of two undeveloped sites with industrial uses. An Environmental Impact Report (EIR) was prepared for the project. The EIR finds that with mitigation measures (protocol surveys, state and federal agency coordination, and avoidance strategies for special status species), any potential impacts to fish or wildlife or their habitat will be reduced to less than significant.

4. The design of the subdivision or the type of improvements will not cause serious public health problems.

   Response: An EIR has been prepared for the project. The EIR finds that with mitigation measures, any potential impacts to public health will be reduced to less than significant.

5. The design of the subdivision or the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision (The Commission or Council may approve a tentative map if it finds that alternative easements for access will be provided, and that these will be substantially equivalent to ones previously acquired by the public. This Subparagraph shall apply only to easements of record or to easements established by judgment of a court of competent jurisdiction, and no authority is hereby granted to the Commission to determine that the public at large has acquired easements for access through or use of property within the proposed subdivision.)

   Response: There are no existing easements on SMP 39 or SMP 40. The Project includes an at-grade, paved trail within a 38.5-foot trail easement along the SMP 39 frontage on West Jack London Boulevard, consistent with the City's Active Transportation Plan. There is an access easement and public use easements on a portion of the Additional Annexation Only Parcels. However, this area will not be developed as part of the Project, with the exception of an at-grade trail along a portion of the Additional Annexation Only Parcels. The design of the subdivisions and the proposed development improvements avoids these easements and thus does not conflict with any public easements.

6. Any proposed phases and their proposed sequence of construction are identified on the submitted tentative map. The City may impose reasonable conditions relating to the filing of multiple final maps in conjunction with the approval of the tentative map (Section 66456.1).

   Response: The subdivision does not involve multiple phases.

BE IT FURTHER RESOLVED with respect to the Site Plan Design Review (SPDR) 21-008 the Planning Commission of the City of Livermore finds based on the information presented:

1. The proposed development will be allowed within the subject zone.

   Response: Based on the approval of the General Plan Amendment application to change the site to industrial use, in concert with prezoning the site to Planned Development – Industrial 22-001 zoning district, which permits light industrial uses and establishes appropriate development standards, the proposed development of industrial buildings is permitted within the subject zone.

2. Be designed such that:
   a. The project will not be detrimental to the public health, safety, or general welfare, and not detrimental to adjacent property;
   b. Architectural design and functional plan of the structure(s) and related improvements are of reasonable aesthetic quality and compatible with adjacent developments;
   c. Structure(s) and related improvements are suitable for the proposed use of the property and provide adequate consideration of the existing and contemplated uses of land and orderly development in the general area of the subject site; and
   d. The project's site plan and design is consistent with the City's Design Standards and Guidelines.

   Response: An Environmental Impact Report (EIR) was prepared for the project. The EIR does not find any significant impacts on the public health, safety, or general welfare to adjacent properties. Based on the review of the development plans for the Project, the design of the proposed development is compatible with adjacent developments and consistent with the Design Standards and Guidelines. No aspect of the proposed development will be detrimental to the existing uses of land and the orderly development in the general area.

3. Be designed to include the following criteria, as applicable:
   a. Compliant with this Chapter, this Development Code, Municipal Code Title 15 (Buildings and Construction), and all other applicable City regulations and policies;
   b. Efficient site layout and design;
   c. Compatible and appropriate scale to neighboring properties and developments;
   d. Efficient and safe public access (both pedestrian and vehicular) and parking;
   e. Appropriate and harmonious arrangement and relationship of proposed structures and signs to one another and to other development in the vicinity, based on good standards of design;
   f. Appropriate relationship to land use and development of adjacent properties, including topographic and other physical characteristics of the land;

g. Proper site utilization and the establishment of a physical and architectural relationship to existing and proposed structures on the site;
h. Compatible architectural style with the character of the surrounding area, both to avoid repetition of identical design where not desired, and to ensure compatibility in design where desired;
i. Harmonious relationship with existing and proposed developments and the avoidance of both excessive variety and monotonous repetition;
j. Compatible in color, material, and composition of the exterior elevations to neighboring visible structures;
k. Appropriate exterior lighting which provides for public safety and is not of a nature that will constitute a hazard or nuisance to adjacent properties;
l. Compatible in scale and aesthetic treatment of proposed structures with public areas;
m. Appropriate open space and use of water efficient landscaping; and
n. Consistent with the General Plan and any applicable Specific Plan.

Response: The Project is designed to be compatible and in scale with the existing surrounding developments. The Project is designed to provide adequate on-site improvements including parking, lighting and landscaping. Based on the design review of the project, as documented in the Planning Commission staff report, the Project meets all the design criteria identified above.

BE IT FURTHER RESOLVED with respect to the Pre-annexation and Development Agreement (DA) 21-001 and Pre-annexation and Development Agreement (DA) 23-002 (attached hereto as Exhibits D and E, respectively) the Planning Commission of the City of Livermore finds based on the information presented:

1. The Development Agreement provides benefit to the City.

   Response: The Development Agreements establish terms and obligations for public benefits, including the Applicant's financial contribution toward and construction of the off-site trail improvements and financial contribution to the City's Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001. For these reasons, the Development Agreements will provide benefit to the City.

2. The Development Agreement is consistent with the purpose, intent, goals, policies, programs, and land use designations of the General Plan, any applicable Specific Plan, and this Development Code.

   Response: The Development Agreements require the Applicant to provide a financial contribution to the City's Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001. This is consistent with the purpose, intent, goals, policies, and programs, of the General Plan. Specifically, this will implement policies and actions in the General Plan Economic Development element to encourage existing businesses to remain and grow in

Livermore, and attract a range of new businesses to locate in Livermore. The Development Agreements also include financial contribution toward and construction of the off-site trail improvements identified in the City's Active Transportation Plan. This is consistent with the purpose, intent, goals, policies, and programs of the General Plan and the Active Transportation Plan to improve bicycle and pedestrian circulation and connectivity.

3. The Development Agreement complies with the requirements of Government Code Sections 65864 through 65869.5

   Response: The proposed development complies with the requirements of Government Code Section 65864 through 65869.5 by securing the terms and timing for off-site improvements and amenities for the benefit of the broader Livermore community.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore has considered the Record Evidence and adopted a resolution recommending the City Council certify an Environmental Impact Report.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore has considered the findings set forth above and adopts these findings as part of this resolution. Based upon the Planning Commission's independent review of the Record Evidence and considerations, the Planning Commission recommends that the City Council approve General Plan Amendment (GPA) 21-001, Annexation/Prezoning (APZ) 21-003, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008, subject to the Conditions of Approval attached hereto as Exhibit F, for the SMP 39/SMP 40 Project.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore has considered the findings set forth above and adopts these findings as part of this resolution. Based upon the Planning Commission's independent review of the Record Evidence and considerations, the Planning Commission recommends that the City Council approve Pre-annexation and Development Agreement (DA) 21-001, and Pre-annexation and Development Agreement (DA) 23-002 in substantial conformance with Exhibits D and E, subject to the Conditions of Approval attached hereto as Exhibit F, for the SMP 39/SMP 40 Project.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore recommends the City Council authorize submission of an application to the Alameda County Local Agency Formation Commission to initiate a sphere of influence modification and annexation proceedings for the Subject Property.

BE IT FURTHER RESOLVED, the Planning Commission of the City of Livermore recommends that the City Council direct the Planning Manager to file a Notice of Determination with the Alameda County Clerk, if the project is approved.

The documents that constitute the record of proceedings upon which this decision is based can be found in the Community Development Department, 1052 S. Livermore Avenue, in Livermore, California.
On the motion by Commissioner Leary, seconded by Commissioner Fintschenko, the foregoing Resolution was passed and adopted at the Planning Commission meeting of March 5, 2024, by the following vote:

AYES: ANDERSON, DUNBAR, FINTSCHENKO, KRONZAK, LEARY.
NOES: NONE.
ABSENT: NONE.

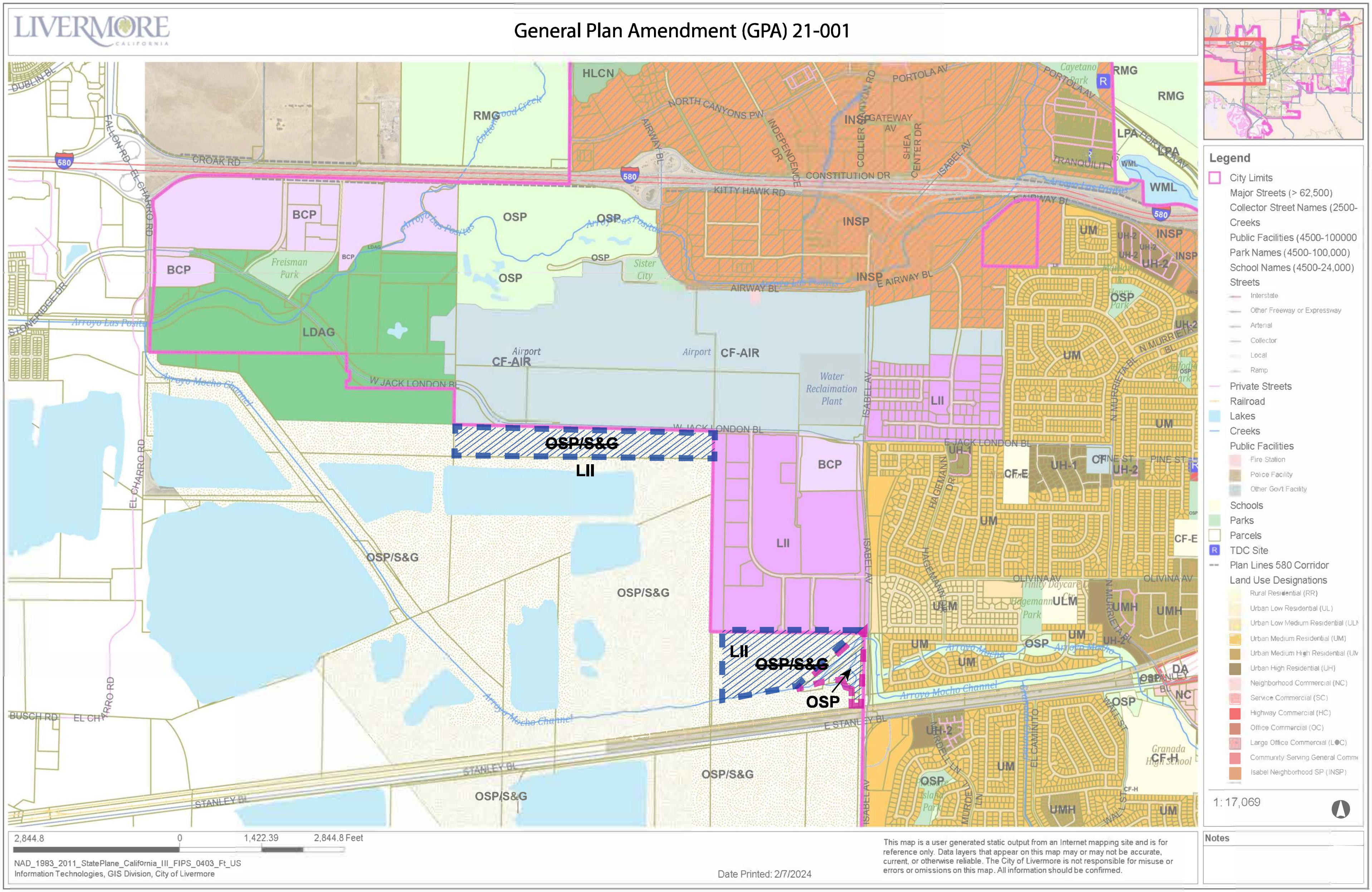
Jacob Anderson, Chairperson

Steve Riley

by Steve Riley, Acting Planning Manager
Secretary to the Planning Commission

Exhibit A – General Plan Amendment (GPA) 21-001
Exhibit B – Zoning Map Amendment (ZMA) 21-002
Exhibit C – Draft Planned Development-Industrial 22-001 Zoning
Exhibit D – Draft Development Agreement (DA) 23-002
Exhibit E – Draft Development Agreement (DA) 21-001
Exhibit F – Conditions of Approval

EXHIBIT B



LIVERMORE
CALIFORNIA
General Plan Amendment (GPA) 21-001
OSP/S&G
LII
LII
OSP/S&G
OSP
BCP
LDAG
CF-AIR
OSP
RMG
HLCN
INSP
UM
UH-2
UMH
ULM
OSP/S&G
W JACK LONDON BL
E STANLEY BL
ISABEL AV
EL CHARRO RD
Water Reclamation Plant
Airport
Legend
City Limits
Major Streets (> 62,500)
Collector Street Names (2500-
Creeks
Public Facilities (4500-100000
Park Names (4500-100,000)
School Names (4500-24,000)
Streets
Interstate
Other Freeway or Expressway
Arterial
Collector
Local
Ramp
Private Streets
Railroad
Lakes
Creeks
Public Facilities
Fire Station
Police Facility
Other Gov't Facility
Schools
Parks
Parcels
TDC Site
Plan Lines 580 Corridor
Land Use Designations
Rural Residential (RR)
Urban Low Residential (UL)
Urban Low Medium Residential (ULM
Urban Medium Residential (UM)
Urban Medium High Residential (UM
Urban High Residential (UH)
Neighborhood Commercial (NC)
Service Commercial (SC)
Highway Commercial (HC)
Office Commercial (OC)
Large Office Commercial (LOC)
Community Serving General Comme
Isabel Neighborhood SP (INSP)
1: 17,069
Notes
2,844.8 0 1,422.39 2,844.8 Feet
NAD_1983_2011_StatePlane_California_III_FIPS_0403_Ft_US
Information Technologies, GIS Division, City of Livermore
Date Printed: 2/7/2024
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. The City of Livermore is not responsible for misuse or errors or omissions on this map. All information should be confirmed.

CONDITIONS OF APPROVAL

Surface Mining Permit (SMP) 39/SMP 40 Project

Annexation/Prezoning (APZ) 21-003, Pre-Annexation and Development Agreement (DA) 21-001, Pre-Annexation and Development Agreement (DA) 23-002, General Plan Amendment (GPA) 21-001, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008

To develop +/- 1.51 million square feet of industrial development and associated parking, lighting, landscaping, and other improvements.

Approved by City Council: March 25, 2024

PROJECT AUTHORIZATION

1. This project shall be in conformance with all City Ordinances, rules, regulations, and policies. The conditions listed below are particularly pertinent to this permit and shall not be construed to permit violation of other laws and policies not so listed.
2. The Developer agrees that mining operations shall not occur on the SMP 39 or SMP 40 properties following project approval. Upon annexation of SMP 39 and SMP 40, Developer agrees that all mining permits previously granted by Alameda County on the SMP 39 and SMP 40 properties shall be null and void. No later than 60 days from the date LAFCo approves annexation of the SMP 39 and SMP 40 properties, subject to any extension granted by the City, Developer shall coordinate with Alameda County to complete any final actions required to remove the mining permits and all associated permissions related to mining operations from the SMP 39 and SMP 40 properties.
3. Approval is limited to the conformance of the land use and the Development Code requirements. Use of the property shall be limited to those permitted by the Planned Development-Industrial (PD-I) 22-001 zoning and the approved Pre-Annexation and Development Agreements, as stated in Development Agreement (DA) 21-001 and DA 23-002. Use of the property shall be limited to those permitted by the Planned Development zoning and the Development Code as it exists now or may be amended in the future.
4. Vesting Tentative Parcel Map 11219 (SUB 21-009) and associated Site Plan Design Review (SPDR 21-008) for SMP 40 shall expire unless a Final Map is filed by March 25, 2026, or as long as specified in DA 21-001, unless a request for extension is received and approved by the City.
5. Vesting Tentative Tract Map 8656 (SUB 1-008) for SMP 39 shall expire unless a Final Map is filed by March 25, 2026, or as long as specified in DA 23-002, unless a request for extension is received and approved by the City.

6. Future development on SMP 39 must be reviewed and approved in compliance with a Site Plan Design Review entitlement and other entitlements deemed necessary per Livermore Development Code Chapter 9.

PROJECT SPECIFIC CONDITIONS

Prior to approval of a Final Map, the applicant shall demonstrate conformance to the following conditions to the satisfaction of the Planning Division:

1. The applicant shall respond in writing to all conditions contained in this document and its attachments. Responses shall describe how the condition has been met and shall, where applicable, direct the plan checker to the page and/or drawing detail that demonstrates compliance with the condition. A copy of these responses shall be provided with each set of improvement and revised plans.
2. The development of this project shall conform to the standards of the PD-I 22-001 zone and all applicable sections of the Livermore Development Code, unless otherwise specified in Development Agreement (DA) 21-001 and DA 23-002.
3. Applicant shall comply with terms outlined in DA 21-001 and DA 23-002, as it exists now or may be amended in the future.
4. The applicant shall comply with all applicable Mitigation Measures required by the SMP 39/40 Environmental Impact Report Mitigation Monitoring and Reporting Program, attached hereto as Attachment 1.
5. Avigation Easements shall be required on SMP 39 and SMP 40.
    a. The avigation easement shall:
        i. Identify the potential hazard associated with the proposed project and its location within protected airspace;
        ii. Identify the airport owner's right to clear or maintain the airspace from potential hazards;
        iii. Identify the right to mark potential obstructions and notify aviators of such hazards; and
        iv. Provide the right to pass within the identified airspace.
    b. Neither a separate overflight easement nor a separate real estate disclosure is required for properties for which an avigation easement is required.
    c. An example of an avigation easement is provided in Attachment 2, Livermore Municipal Airport Land Use Compatibility Plan – Appendix E, Sample Implementation Documents.
6. The applicant shall record the deed notification provided in the Livermore Executive Airport - Airport Land Use Compatibility Plan, Chapter 3.3.4.6, on the property for which this discretionary development permit is issued, as follows:

NOTICE OF AIRPORT IN VICINITY
This property is presently located in the vicinity of an airport, within what

is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

7. Project applicant shall file a Federal Aviation Administration (FAA) Form 7460-1 (Notice of Proposed Construction or Alteration) at least 90 days before construction of SMP 39. Filing 120 days ahead of construction is recommended.
8. Given the proximity to the airport, interior building noise levels attributable to exterior sources shall not exceed 45 dB Ldn or CNEL, consistent with Title 24 requirements.
9. Consistent with the PD-I 22-001 zoning, no use shall be permitted which creates an ambient noise level greater than 75 decibels (dBA) beyond the boundaries of the site, nor greater than 60 decibels at the boundary of a Residential District.
10. Consistent with the PD-I 22-001 zoning, on SMP 39, semi-truck access to the site (arrivals and departures) shall be limited to 96 trips between the hours of 10:00 PM and 7:00 AM.
11. Consistent with the PD-I 22-001 zoning, on SMP 40, semi-truck access to the site (arrivals and departures) shall be limited to 40 trips between the hours of 10:00 PM and 7:00 AM.
12. Consistent with the PD-I 22-001 zoning, between the hours of 10:00 PM and 7:00 AM single-event noise levels (e.g., backup alarm, truck brakes, etc.) shall not exceed 55 dBA, measured at the property line of the nearest residential use.

Prior to Building Permit issuance, the applicant shall demonstrate conformance to the following conditions to the satisfaction of the Planning Division:

13. All rooftop mechanical equipment shall be designed to be fully screened from public view by roof parapet or architecturally integrated roof screen. Construction drawings shall include section drawings and roof plans demonstrating conformance with this requirement. To the extent practical, all ground-mounted mechanical equipment shall be located on roof areas. Ground mounted equipment to remain shall be fully screened from public view, as approved by the Community Development Department Director.
14. Project construction shall implement the Bay Area Air Quality Management District (BAAQMD) Basic Construction Mitigation Measures, listed in the BAAQMD CEQA Guidelines, whether or not construction-related emissions exceed applicable Thresholds of Significance.
15. Project construction shall include implementation of BAAQMD's enhanced best management practices to control fugitive dust emissions.
16. Require that construction and structure demolition/modification activities be conducted outside of bird nesting season (February 1 to August 31) to the extent feasible. Construction activities may be permitted to occur within bird nesting season

if a qualified biologist conducts a pre-construction survey, as described in the SMP 39/40 Environmental Impact Report Mitigation Monitoring and Reporting Program, attached hereto as Attachment 1.

17. All trees adjacent to public infrastructure shall use control features like root barriers and engineered soils to prevent infrastructure damage, as approved by the Community Development Department Director.

18. The plans shall show how exterior backflow preventers are screened from public view with landscape or by other appropriate means, as approved by the Community Development Department Director.

19. The applicant shall satisfy the Public Art requirement pursuant to the Livermore Municipal Code (LMC Chapter 12.51) by paying the in-lieu fee.

20. The project applicant and/or contractor shall treat any human remains encountered during ground-disturbing activities in accordance with California Health and Safety Code Section 7050.5.

21. Prior to excavation, grading, or construction on the development site, the applicant shall contact the Alameda County Vector Control Services District to determine if any pre-baiting requirements are necessary to control migration of vermin to adjacent property.

22. All newly constructed buildings shall be all-electric buildings consistent with Chapter 15.26.280 of the Livermore Municipal Code.

23. The plans shall include a photometric plan to verify adequate site lighting and shielding without adverse impact on surrounding streets, properties, the Airport (SMP 39) and the Arroyo Mocho (SMP 40). The plan shall include a height detail of the proposed pole lights. The pole lights shall not exceed 18 feet in height.

24. Gate access from the parking lots/landscaped areas of buildings 1 and 2 to the trail will be provided on the site plans prior to issuance of building permits. Paved ramps shall be provided from each building to their respective parking lots at the access gates to the on-site trail.

25. The project applicant shall be required to develop a Transportation Demand Management (TDM) Program for SMP 39 and SMP 40 as noted in more detail by the SMP 39/40 Environmental Impact Report Mitigation Monitoring and Reporting Program, attached hereto as Attachment 1. The applicant is encouraged to coordinate the TDM Program for SMP 39 and SMP 40 with the existing Oaks Business Park TDM program.

26. The Crape Myrtle trees near the Employee Amenity Area on SMP 40 shall be replaced with Chinese Pistache trees.

27. The project applicant shall provide a revised landscape plan for the western parcel on SMP 40. The revised landscape plan shall meet the Chapter 4.05, Landscape Standards per the Livermore Development Code including but not limited to the landscaping requirements in Table 4.13, Required Shade Trees.

GENERAL CONDITIONS OF APPROVAL

1. Development shall conform to the plans designated by the City as Exhibit B-1. Exhibit B-1 plans shall include but are not limited to subdivision, landscape, and architectural plans (for SMP 39 and 40) reviewed and approved by the Planning Commission and City Council and amended by the applicant to reflect any changes indicated above in the Project Specific Conditions or required by the City in the approval process. The applicant shall submit any required amended plans to the Community Development Department within 90 days of project approval.
2. The Developer shall pay the processing and development impact fees applicable City-wide that are in effect at the time the fees are paid. Payment for said fees shall be made prior to issuance of any building permits.
3. The Community Development Department may approve minor amendments to the permit, provided that the permit is still in substantial conformance with the original approval.
4. Approval of the Site Plan Design Review for SMP 40, Tentative Tract Map, and Tentative Parcel Map entitlements is not an authorization to commence construction. Building construction, alterations, repairs, sign erection, or occupancy shall not be permitted without prior approval of the Building Division through issuance of any required permits.
5. To the extent permitted by law, the project applicant shall defend, indemnify and hold harmless the City, its City Council, its officers, boards, commissions, employees and agents from and against any claim, action, or proceeding brought by a third party against the indemnified parties and the applicant to attack, set aside, or void the approval of the project or any permit authorized hereby for the project, including (without limitation) reimbursing the City its attorney's fees and costs incurred in defense of the litigation. The City may, in its sole discretion, elect to defend any such action with attorneys of its choice.

ENGINEERING DIVISION – DEVELOPMENT

1. Development shall conform to the attached Engineering Considerations for SMP 39 and SMP 40, dated March 5, 2024, respectively (refer to Attachment 3).

BUILDING DIVISION

1. Future development shall conform to California codes adopted at time of Building permit submittal.
2. Building permit issuance is contingent on parcels having been annexed into the City of Livermore and recording of final maps.

FIRE DEPARTMENT

1. On preliminary utility plans, relocate post indicators immediately upstream of single check valves in vaults which feed ASR manifolds and single ASR's
2. FIRE HAZARDS: The project developer shall keep the site free of fire hazards from the start of lumber construction until the final inspection.

3. FIRE CODE: All construction shall conform to the requirements of the 2022 Livermore Fire Code and local ordinances. All required permits shall be obtained prior to work commencement.
4. SITE SAFETY: Site safety during construction shall be in accordance with Fire Code chapter 33.
5. FIRE SPRINKLERS: Automatic fire sprinklers shall be installed in all occupancies in accordance with the 2022 Pleasanton Building, Fire and Residential Codes with local amendments and ordinances.
6. EMERGENCY RESPONDER RADIO: Emergency responder radio coverage shall be provided in accordance with section 510 of the Fire Code.
7. FIRE PROTECTION FACILITIES: Prior to any construction framing, the applicant shall provide adequate fire protection facilities, including, but not limited to a water supply and water flow in conformance to the City's Fire Department Standards able to suppress a major fire.
8. WATER FLOW AND CONTROL VALVES: All fire sprinkler system water flow and control valves shall be complete and serviceable prior to final inspection. Prior to the occupancy of a building having a fire alarm system, the Fire Department shall test and witness the operation of the fire alarm system.
9. ELECTRICAL CONDUIT: Electrical conduit shall be provided to each fire protection system control valve including all valve(s) at the water connections. The Livermore-Pleasanton Fire Department requires electronic supervision of all valves for automatic sprinkler systems and fire protection systems.
10. LISTED: All commercial, industrial, and multi-family residential occupancies shall have valve tamper and water flow connected to a listed Central Station Service in accordance with NFPA 72. Fire Department plan check includes specifications, monitoring, installation, and alarm company certificates. Fire alarm control panel and remote annunciation shall be at location(s) approved by the Fire Prevention Bureau. All systems shall be point identified by individual device and annunciated by device type and point.
11. HAZARDOUS MATERIALS DECLARATION: A Hazardous Materials Declaration shall be provided for this tenant and/or use. The form shall be signed by the owner/manager of company occupying the suite/space/building. No building permit shall be issued until the Hazardous Materials Declaration is provided. The form is available from the Livermore-Pleasanton Fire Department, Fire Prevention Bureau.
12. HAZARDOUS MATERIALS: Should any operation or business activity involve the use, storage or handling of hazardous materials, the firm shall be responsible for contacting the Livermore-Pleasanton Fire Department prior to commencing operations. Please contact the Hazardous Materials Coordinator at 925/454-2361.
13. FIRE HYDRANTS: Fire hydrants shall be installed at spacing not greater than 300 feet in industrial and commercial developments. Fire hydrants shall be installed at spacing not greater than 400 feet in residential developments.
14. FIRE LANE MARKING: On-site access ways, turn arounds, and internal drives shall be designated as fire lanes and identified as such by red curb striping and

posted with signs at locations approve by the Fire Department. Signs shall be according to State standards and read “No Parking – Fire Lane” and must be shown on the plans. The red curb striping, sign location(s), and sign language shall be included in the building permit submittal for review and approval by the Livermore-Pleasanton Fire Department prior to building permit issuance.

a. The following schedule for NO PARKING signs shall apply:

Width	*Requirements*
36 feet or greater	No requirements
Between 28 and 36 feet	Post one side
Between 20 and 28 feet	Post both sides
Less than 20 feet	Not permitted
Cul-de-Sac	Not permitted

15. EMERGENCY VEHICLE ACCESS ROADS: Access roads shall have 13 feet, 6 inches unobstructed vertical clearance, 20 feet of unobstructed width (26 feet where occupied building floors exceed 30 feet height), and inside turning radius of 31 feet and outside turning radius of 51 feet. Unobstructed shall mean a clear travel way, excluding parking width, and designed for an emergency vehicle weight of 70,000 pounds under all weather conditions. Unobstructed width shall not include the width of rolled curbs, sidewalks, or non-drivable surfaces. All exterior portions of buildings must be within 200 feet of an access road. Yard and parking area may be able to be located farther than 200 feet from access roads, depending on the specific use.
16. EMERGENCY VEHICLE ACCESS ROADS – ADDITIONAL CRITERIA FOR COMMERCIAL: Buildings or facilities exceeding 62,000 square feet (non-sprinklered) and 124,000 square feet (sprinklered) of gross building area shall be provided with two separate and approved fire apparatus access roads. The roads shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.
17. FIRE VEHICLE TURNAROUNDS: Where Fire Department vehicle access through or around a site involves changes in direction or curves, inside radius of 45 feet and outside radius of 55 feet shall be provided to facilitate fire truck turning radius for entry and exit from the site. Dead-end access ways and internal drives shall not exceed 300 feet in length and shall terminate in cul-de-sacs no less than 96 feet in diameter or hammer-head (tee). Standards and options are available through the Livermore-Pleasanton Fire Department, Fire Prevention Bureau.
18. PREMISES IDENTIFICATION: Address numbers shall be installed on the front or primary entrance for all buildings. Minimum building address character size shall be 12-inch high by 1-inch stroke. In all cases address numerals shall be of contrasting background and clearly visible in accordance with the Livermore-Pleasanton Fire Department Premises Identification Standards. This may warrant field verification and adjustments based upon topography, landscaping or other obstructions.

19. COMMERCIAL – NEW CONSTRUCTION: The following items shall be provided prior to any construction above the foundation or slab.
    a. Emergency vehicle access shall be provided to the site, including areas where construction is occurring. If Public Works Improvements are part of the project to access the site, an emergency vehicle access plan shall be submitted for review and approval to the Fire Department.
    b. If permanent access or site paving is not provided, the carrying capacity of the emergency vehicle access shall be 70,000 pounds under all weather conditions.
    c. Site staging area(s) shall be provided for materials and equipment. All staging areas shall be outside of the emergency vehicle access route shown on the approved plans.
    d. Where on-site fire hydrant(s) are required, they shall be installed, flushed and all valves open prior to any construction above the foundation or slab. This includes concrete tilt-up and masonry buildings.
    e. On-site fire hydrant(s) shall not be obstructed and shall be sufficiently above grade to have all hydrant valves and outlets accessible for emergency use.
    f. Where a project is phased as part of the development, specific access, water supply and fire hydrant installations will be required as part of each phase. As needed a phasing plan with these improvements will be required.
    g. Where on-site grading/utility plans are submitted for review and approval prior to building construction drawings, emergency vehicle access routes, fire hydrant locations, material staging areas, etc. shall be provided.
20. FINAL INSPECTION: Prior to request for final inspection, all access roads, on-site access and fire hydrants shall be provided. All fire hydrants shall be accepted, inspected and tested to applicable City Standards.

POLICE DEPARTMENT

1. The project shall be required to conform to the provisions of the security section of the Livermore Municipal Code.

ZONE 7

1. Zone 7 records indicate that there are 11 wells in or immediately adjacent to the project area. All of these wells must be protected during construction. Additionally, one destroyed well exists at the site. Please be advised that Zone 7 program wells must remain operational during and following construction as they are essential to Zone 7's regional groundwater monitoring program. Contact Zone 7 to coordinate any necessary upgrades or adjustments in the well and/or well box elevation to match the final grade. The Applicant shall coordinate with Zone 7 Water Agency concerning the decommissioning of any wells onsite.
2. Please immediately notify Zone 7 if any other wells exist in the project area. All well locations should be field verified and noted on the plans. A Zone 7 drilling permit is needed for any well or soil boring work that may be planned for this project. The drilling permit application and permit fee schedule can be downloaded from our website: https://www.zone7water.com/post/well-drilling-and-soil-boring-permits. For additional information please email wellpermits@zone7water.com.

3. It should be noted that the subject property (or project) is located within the basin area under sustainable groundwater management by Zone 7 as per the Alternative Groundwater Sustainability Plan for the Livermore Valley Groundwater Basin (https://www.zone7water.com/sites/main/files/fileattachments/alt_gw_sustainability_plan-4.pdf?1656015908) and is subject to all relevant sustainable groundwater management actions.
4. Developments creating new impervious areas within the Livermore-Amador Valley are subject to the assessment of the Development Impact Fee for Flood Protection and Storm Water Drainage. These fees are collected for Zone 7 by the local governing agency: 1) upon approval of final map for public improvements creating new impervious areas; and/or 2) upon issuance of a building or use permit required for site improvements creating new impervious areas. Fees are dependent on whether post-project impervious area conditions are greater than pre-project conditions and/or whether fees have previously been paid.

Attachments:

1. SMP 39/SMP 40 Environmental Impact Report Mitigation Monitoring and Reporting Program
2. Livermore Municipal Airport Land Use Compatibility Plan – Appendix E, Sample Implementation Documents
3. Engineering Considerations dated March 5, 2024

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
4.2 Air Quality and Greenhouse Gas Emissions					
4.2-1	Conflict with or obstruct implementation of the applicable air quality plan during project construction.	*4.2-1(a)* *Prior to approval of any Improvement Plans, the project applicant shall provide proof of compliance with the following to the satisfaction of the City of Livermore Community Development Department:* *The project applicant shall show on the plans via notation that the contractor shall ensure that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction of all project components (i.e., construction of SMP 39, SMP 40, and the chosen off-site trail connection option), including owned, leased, and subcontractor vehicles, shall be a combination of engine Tier 3 or Tier 4 off-road construction equipment, or hybrid, electric, or alternatively fueled equipment (or any combination of the above), sufficient to achieve a fleet-wide average reduction in construction-related ROG and NOX emissions to below the applicable BAAQMD thresholds of significance (54 lbs/day). For instance, the emissions presented in Table 4.2-8 were achieved by requiring all equipment used during construction to be engine Tier 4 final.*	City of Livermore Community Development Department	Prior to approval of any Improvement Plans	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		In addition, all off-road equipment operating at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to five minutes or less in accordance with the In-Use Off-Road Diesel Vehicle Regulation as required by CARB. Clear signage regarding idling restrictions shall be placed at the entrances to the construction site. *Portable equipment over 50 horsepower must have either a valid BAAQMD Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB.* *Conformance with the foregoing requirements shall be included as notes and be confirmed through review and approval of grading plans by the City of Livermore Community Development Department.*			
		4.2-1(b) The project applicant shall show on Improvement Plans via notation that the project contractor shall restrict the building construction and architectural coating phases of construction for SMP 39 from occurring simultaneously with the building construction and architectural coating phases of construction for SMP 40.	City of Livermore Community Development Department	Prior to approval of any Improvement Plans	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		Conformance with this requirement shall be confirmed through review and approval of plans by the City of Livermore Community Development Department.			
4.2-2	Conflict with or obstruct implementation of the applicable air quality plan during project operation.	*4.2-2 Prior to approval of any Improvement Plans, the project applicant shall provide proof of compliance with the following to the satisfaction of the City of Livermore Community Development Department:* • *The project applicant shall show on the Improvement Plans via notation that all off-road equipment (i.e., forklifts) to be used during operations of the proposed project shall be a combination of propane and electric, sufficient to achieve a fleet-wide average reduction in operational-related NOX emissions to below the applicable BAAQMD threshold of significance (54 lbs/day). For instance, the emissions presented in Table 4.2-10 were achieved by requiring that 27 percent of the forklifts used during operations on both SMP 39 and SMP 40 are electric.*	City of Livermore Community Development Department	Prior to approval of any Improvement Plans	
4.3 Biological Resources					
4.3-2	Have a substantial adverse effect, either directly or through habitat modifications, on special-status wildlife species.	*Western Burrowing Owl* *4.3-2(a) If project construction begins during the western burrowing owl nesting season (February 1 to August 31), a qualified biologist shall conduct targeted burrowing owl nest surveys within 14 days prior to*	City of Livermore Community Development Department	Within 14 days prior to construction activities if project construction begins during the western	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		construction activities using seven- to 20-foot transects. A separate preconstruction survey shall be conducted for SMP 39 and SMP 40 (including the off-site trail connection area) if the components of the project are not constructed concurrently. The survey shall include the project site and all accessible areas within 500 feet of the project impact zone, and shall follow CDFW guidelines outlined in the 2012 Staff Report on Burrowing Owl Mitigation. The results of the survey shall be submitted to the City of Livermore Community Development Department within 30 days of the completed survey. The survey report shall be valid for one construction season. *If western burrowing owls are not detected on-site during the survey, further mitigation shall not be required. If any western burrowing owls are detected on-site, pursuant to the CDFW's 2012 Staff Report on Burrowing Owl Mitigation, the following restricted activity dates and setback distances shall be implemented:* • *From April 1 through October 15, low disturbance activities shall have a 200-meter buffer while high disturbance activities shall have a 500-meter buffer from occupied nests.* • *From April 1 through August 15, medium disturbance activities shall have a 500-meter buffer from*		burrowing owl nesting season (February 15 to August 31)	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		occupied nests. Medium disturbance activities can have a reduced buffer of 200 meters starting August 16 through October 15. • *From October 16 through March 31, low disturbance activities shall have a 50-meter buffer, medium disturbance activities shall have a 100-meter buffer, and high disturbance activities shall have a 500-meter buffer from occupied nests.* • *Earth-moving activities or other disturbance shall not occur within the aforementioned buffer zones of occupied burrows unless monitoring of the nest site by a qualified biologist determines that the owls are acclimated to the disturbance and would not be disturbed by a smaller buffer. The buffer zones shall be fenced.* • *A qualified biologist shall delineate the extent of burrowing owl habitat on the site.* • *Owls may be passively relocated from the project site between October 1 and February 1. Passive removal shall be conducted by a qualified biologist with demonstrated experience with passive relocation.* • *Credits shall be purchased from a mitigation bank in coordination with CDFW and the City of Livermore to*			

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		offset the project's habitat loss on the burrowing owl. *A report detailing compliance with the provisions set forth herein shall be prepared by the qualified biologist and submitted for review and approval to the City of Livermore Community Development Department.*			
		Western Burrowing Owl (Trail Connection Options 2 and 3) *4.3-2(b) In the event that Trail Connection Option 2 – Undercrossing at Isabel Bridge or Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84 is the selected trail connection option for the proposed project, the requirements of Mitigation Measure 4.3-2(a) shall be implemented for the disturbance area associated with the trail connection option.*	City of Livermore Community Development Department	Within 14 days prior to construction activities if project construction begins during the western burrowing owl nesting season (February 15 to August 31)	
		Tricolored Blackbird *4.3-2(c) Prior to any ground disturbance on SMP 40, a qualified biologist shall conduct a preconstruction survey in all accessible areas identified as supporting potential tricolored blackbird nesting habitat. The survey shall document the current, and to the extent possible, historical presence or absence of nesting colonies of tricolored blackbird. Surveys shall conclude no more than two calendar days prior to construction. If a tricolored blackbird nesting colony is present, a 250-foot buffer shall be applied*	City of Livermore Community Development Department	Prior to any ground disturbance on SMP 40	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		from the outer edge of all hydrophytic vegetation associated with the site and the site plus buffer shall be avoided. The Wildlife Agencies shall be notified immediately of nest locations. All survey results shall be submitted to the City of Livermore Community Development Department prior to the start of construction. If current or recent tricolored blackbird nesting colonies are not identified, further action is not required. *If construction takes place during the breeding season when an active colony is present, a qualified biologist shall monitor construction to ensure that the 250-foot buffer zone is enforced. If monitoring indicates that construction outside of the buffer is affecting a breeding colony, the buffer shall be increased if space allows (e.g., move staging areas farther away). If space does not allow, construction shall cease until the colony abandons the site or until the end of the breeding season, whichever occurs first. The biological monitor shall also conduct training of construction personnel on the avoidance procedures, buffer zones, and protocols in the event that tricolored blackbirds fly into an active construction zone (i.e., outside the buffer zone).* *Nesting Birds and Raptors (Including Loggerhead Shrike)*			

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		4.3-2(d) *If project construction begins during the nesting season (February 1 to August 31), a qualified biologist shall conduct a nesting bird survey within 7 days prior to construction activities. A separate preconstruction survey shall be conducted for SMP 39 and SMP 40 (including the off-site trail connection area) if the components of the project are not constructed concurrently. The nesting bird survey shall include walking transects to search for ground nesting birds, and an examination of all trees on-site and within all accessible areas within 200 feet of the entire project site and off-site improvement areas (i.e., within a zone of influence of nesting birds). If nesting birds are not found within the project site or off-site improvement areas, further mitigation shall not be required.* *If migratory birds are identified nesting on or within the zone of influence, the Wildlife Agencies shall be notified immediately of nest locations. A qualified biologist shall establish a temporary protective nest buffer around the nest(s). The nest buffer shall be staked with orange construction fencing. The buffer must be of sufficient size to protect the nesting site from construction-related disturbance and shall be established by a qualified ornithologist or biologist with extensive experience working with nesting birds near and on construction sites. Typically, adequate nesting buffers are 75*	City of Livermore Community Development Department	Within seven days prior to construction activities, if project construction begins during the nesting season (February 1 to August 31)	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		feet from the nest site or nest tree dripline for small birds and up to 300 feet for sensitive nesting birds that include several raptor species known in the region of the project site but that are not expected to occur on the project site. Upon completion of nesting surveys, if nesting birds are identified on or within a zone of influence of the project site, a qualified ornithologist/biologist that frequently works with nesting birds shall prescribe adequate nesting buffers to protect the nesting birds from harm while the project is constructed. *Construction or earth-moving activity shall not occur within any established nest protection buffer prior to September 1 unless a qualified ornithologist/biologist determines that the young have fledged and have attained sufficient flight skills to avoid project construction zones, or that the nesting cycle is otherwise completed. In the region of the project site, most species complete nesting by mid-July; however, the date may be significantly earlier or later, and would have to be determined by the qualified biologist. At the end of the nesting cycle, and fledging from the nest by its occupants, as determined by a qualified biologist, temporary nesting buffers may be removed and construction may commence in established nesting buffers without further regard for the nest site. If active nesting buffers are established and a biologist does*			

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		not confirm that the nesting cycle is completed, then the nesting buffers must be maintained until the end of the CDFW recognized nesting season (September 1). *Should construction activities cause a nesting bird to do any of the following in a way that would be considered a result of construction activities, then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop the following agitated behavior: vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest. The revised non-disturbance buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified biologist in consultation with the City of Livermore.* *A report detailing compliance with the provisions set forth herein shall be prepared by the qualified biologist and submitted for review and approval to the City of Livermore Community Development Department.*			
4.3-3	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS, or State or Federally protected wetlands	*Trail Connection Option 2 – Undercrossing at Isabel Bridge* *4.3-3(a)* *Prior to the initiation of ground-disturbing activities, the project applicant shall submit a formal wetland delineation to the USACE for Trail Connection Option 2 for verification to determine the extent of all hydrological features, their jurisdictional status, and the extent of any impacts resulting from the proposed project. A copy of the wetland*	City of Livermore Community Development Department USACE	Prior to initiation of ground-disturbing activities	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
	(including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	*delineation and USACE verification letter shall be submitted to the City of Livermore Community Development Department. If Trail Connection Option 2 will result in impacts to features under the USACE's jurisdiction, Mitigation Measure 4.3-3(e) shall be required.* *Trail Connection Option 2 – Undercrossing at Isabel Bridge* *4.3-3(b) In the event that Trail Connection Option 2 – Undercrossing at Isabel Bridge is the selected Trail Connection Option for the proposed project, implement Mitigation Measures 4.5-1 and 4.5-2 related to the preparation of a SWPPP and final Stormwater Control Plan and Maintenance Plan during project construction and operations, respectively.* *SMP 40 and Trail Connection Option 2* *4.3-3(c) Prior to the commencement of ground-disturbing activities for SMP 40 or Trail Connection Option 2, if selected, the project contractor shall notify CDFW pursuant to Section 1600 of the CFGC. The notification shall include a description of all of the activities associated with the proposed project, not just those associated with the drainages and/or riparian vegetation. Impacts shall be outlined in the notification and are expected to be in substantial conformance with the impacts to biological resources outlined in the Biological*	City's Public Works Director City Engineer City of Livermore Public Works Department City of Livermore Community Development Department	Prior to the issuance of any grading permits Prior to commencement of ground-disturbing activities for SMP 40 or Trail Connection Option 2 (if selected)	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		Resources Assessments prepared for SMP 40 by Monk & Associates. Impacts for each activity shall be broken down by temporary and permanent impacts. A description of the proposed mitigation for biological resource impacts shall be outlined per activity and then by temporary and permanent impact. Information regarding project-specific drainage and hydrology changes resulting from project implementation shall be provided, as well as a description of stormwater treatment methods. Minimization and avoidance measures shall be proposed, as appropriate, and may include the following: • *To avoid fuels, lubricants, soils and other pollutants from entering Arroyo Mocho, wildlife friendly hay wattles (that is, no mono-filament netting) and silt fencing shall be installed at the top of bank. The use of mulch or any other substitute that may enter into the creek shall be prohibited.* • *Staging, operation and maintenance of heavy duty construction equipment shall be located away from Arroyo Mocho at all times and well outside of the riparian corridor unless the equipment is needed to specifically work on the realignment of Arroyo Mocho or the outfalls for the project.* • *To mitigate for any impacts to the riparian corridor of Arroyo Mocho,*			

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		disturbed areas shall be revegetated with native riparian plant species. Replacement of riparian trees to be removed shall be planted near the creek as feasible and/or adjacent to the existing limits of the riparian corridor to contribute to the existing riparian canopy. Riparian plantings shall be maintained for a minimum of 5 years to ensure that the canopy is enhanced and the understory restored. • *Non-native and invasive ornamental landscaping shall be precluded from use proximate to Arroyo Mocho.* • *To avoid debris from entering Arroyo Mocho, the final project design shall provide for enclosed and accessible trash receptacles (located outside of the riparian corridor).* • *New lighting introduced by the project shall be downcast and precluded from spilling over to the riparian corridor as direct lighting along creek corridors has a negative impact on nocturnal wildlife.* *Mitigation shall not result in a net loss of a Sensitive Natural Community. Written verification of Section 1600 of the LSAA shall be submitted to the City of Livermore Community Development Department.*			

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		Trail Connection Option 2 – Undercrossing at Isabel Bridge *4.3-3(d) Prior to the initiation of groundbreaking activity associated with Trail Connection Option 2, if selected, the project applicant shall ensure that authorization pursuant to the Clean Water Act (CWA) Section 401 from the San Francisco Bay Regional Water Quality Control board (RWQCB) is obtained.* *If Trail Connection Option 2 will result in impacts to features under the RWQCB's jurisdiction, the construction contractor shall adhere to all conditions outlined in the permit. The project applicant shall ensure that the proposed project replaces, restores, or enhances on a "no net loss" basis (in accordance with the RWQCB) the acreage of all riparian habitat and waters of the State that would be removed, lost, and/or degraded due to project implementation by methods agreeable to the RWQCB and the City, as appropriate, depending on agency jurisdiction, and as determined during the Section 401 permitting processes. Methods include, but are not limited to implementation of a riparian enhancement planting plan and/or tree planting mitigation at a 1:1 ratio, or as otherwise prescribed by the RWQCB.* *Trail Connection Option 2 – Undercrossing at Isabel Bridge* *4.3-3(e) If it is determined that work below the OHWM cannot be avoided for Trail Connection*	The San Francisco Bay Regional Water Quality Control board (RWQCB) City of Livermore	Prior to the initiation of ground-breaking activity associated with Trail Connection Option 2 (if selected) Prior to issuance of grading permits, if it	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		Option 2, prior to the issuance of grading permits, the project applicant shall apply for a CWA Section 404 permit from the USACE. Waters that would be lost or disturbed shall be restored, replaced, or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement, including the purchase of credits from a USACE approved mitigation bank at a 1:1 ratio, shall be at a location and by methods acceptable to the USACE. Documentation of compliance with the provisions set forth herein shall be submitted to the City of Livermore Community Development Department for verification.	Community Development Department USACE	is determined that work below the Ordinary High Water Mark (OHWM) cannot be avoided for Trail Connection Option 2 (if selected)	
Cultural and Tribal Cultural Resources					
4.4-2	Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5.	*4.4-2 In the event a potentially significant cultural resource is encountered during subsurface earthwork activities, all construction activities within a 100-foot radius of the find shall cease and workers shall avoid altering the materials until an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology has evaluated the find. The project applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The qualified archeologist shall make recommendations to the City of Livermore on the measures that shall be implemented to protect the discovered resources, including, but not limited to, culturally appropriate temporary and*	The Confederated Villages of Lisjan City of Livermore Community Development Department The Northwest Information Center (NWIC) The State Historic	In the event a potentially significant cultural resource is encountered during subsurface earthwork activities	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		permanent treatment, which may include avoidance of cultural resources, in-place preservation, and/or reburial on the project site so the resource(s) are not subject to further disturbance in perpetuity. In addition, The Confederated Villages of Lisjan shall be notified of the discovery. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. If necessary, excavation and evaluation of the finds shall comply with Section 15064.5 of the CEQA Guidelines. *Potentially significant archaeological site indicators include obsidian and chert flakes and chipped stone tools; grinding and mashing implements (e.g., slabs and handstones and mortars and pestles); bedrock outcrops and boulders with mortar cups; and locally darkened midden soils. Midden soils may contain a combination of any of the previously listed items with the possible addition of bone and shell remains, and fire-affected stones. Any previously undiscovered resources found during construction within the project site shall be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and*	Preservation Office (SHPO)		

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
Impact Number	**Impact**	**Mitigation Measure**		**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
			will be submitted to the City of Livermore, the Northwest Information Center (NWIC), and the State Historic Preservation Office (SHPO), as required.			
4.4-3	Disturb any human remains, including those interred outside of dedicated cemeteries.	*4.4-3*	*In the event of the accidental discovery or recognition of any human remains, further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur until the Alameda County Coroner has been notified to determine if an investigation into the cause of death is required. If the County Coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission (NAHC), which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. The potential exists that the NAHC may be unable to identify a most likely descendant, the most likely descendant fails to make a recommendation within 48 hours after notification by the NAHC, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the NAHC fails*	Alameda County Coroner Native American Heritage Commission (NAHC) City of Livermore Community Development Department	In the event of the accidental discovery or recognition of any human remains	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
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			to provide a measure acceptable to the landowner. In such case, the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the NAHC shall be submitted as proof of compliance to the City of Livermore Community Development Department.			
4.4-4	Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074.	*4.4-4*	*Implement Mitigation Measures 4.4-2 and 4.4-3.*	See Mitigation Measures 4.4-2 and 4.4-3	See Mitigation Measures 4.4-2 and 4.4-3	
Hydrology and Water Quality						
4.5-1	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality during construction.	*4.5-1*	*Prior to issuance of any grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the San Francisco Bay RWQCB. The contractor shall file the Notice of Intent (NOI) and associated fee to the SWRCB. A separate SWPPP shall be prepared for SMP 39 and SMP 40 (including the off-site trail connection area) if the components of the project are not constructed concurrently. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable.*	City of Livermore Public Works Director City Engineer	Prior to issuance of any grading permits	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
Impact Number	**Impact**		**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
			Construction (temporary) BMPs for the project may include, but are not limited to: fiber rolls, straw bale barrier, straw wattles, storm drain inlet protection, velocity dissipation devices, silt fences, wind erosion control, stabilized construction entrance, hydroseeding, revegetation techniques, and dust control measures. The SWPPP shall be submitted to the City's Director of Public Works and the City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.			
4.5-2	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality during operations.	*4.5-2(a)*	*Prior to approval of final project improvement plans for SMP 39, SMP 40, and the selected off-site trail connection option, a final Stormwater Control Plan and Maintenance Plan shall be submitted to the City Director of Public Works, and the City Engineer for review and approval. A separate Stormwater Control Plan and Maintenance Plan shall be prepared for SMP 39, SMP 40, and the selected off-site trail connection option, if the components of the project are not constructed concurrently. The final Stormwater Control Plan and Maintenance Plan shall be in compliance with all applicable provisions of the C.3 Standards,*	City of Livermore Public Works Director City Engineer City of Livermore Public Works Department	Prior to approval of final project improvement plans for SMP 39, SMP 40, and the selected off-site trail connection option	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
Impact Number	**Impact**	**Mitigation Measure**		**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
			and shall meet the standards of the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment. Site design measures, source control measures, hydromodification management, and Low Impact Development (LID) standards, as necessary, shall be incorporated into the design and shown on the improvement plans. The final plans shall include calculations demonstrating that the water quality BMPs are appropriately sized, using methodology in the CASQA Stormwater BMP Handbook for New Development and Redevelopment. The final plans shall be submitted to the Public Works Department for review and approval.			
		4.5-2(b)	*Implement Mitigation Measures 4.3-3(b) through 4.3-3(e).*	See Mitigation Measures 4.3-3(b) through 4.3-3(e)	See Mitigation Measures 4.3-3(b) through 4.3-3(e)	
4.5-4	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which	*4.5-4*	*Prior to approval of final project improvement plans for SMP 39, SMP 40, and the selected off-site trail connection option, a final drainage plan shall be submitted to the City Director of Public Works, and the City Engineer for review and approval demonstrating the project's compliance with all State stormwater standards and requirements. A separate drainage plan shall be prepared for SMP 39, SMP 40, and the selected off-site trail connection option, if the components of the project are not*	City of Livermore Public Works Director City Engineer	Prior to approval of final project improvement plans for SMP 39, SMP 40, and the selected off-site trail connection option	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
Impact Number	**Impact**		**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
	would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or result in substantial erosion or siltation on- or off-site.		*constructed concurrently. The final drainage plan shall identify the water quality treatment and source control measures needed to ensure that stormwater runoff from the proposed project is adequately treated and peak flows do not exceed the capacity of the receiving storm drainage system.*			
4.5-5	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows, or in flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation.	*4.5-5*	*Prior to Building Permit issuance for SMP 39 (if buildings are determined to be within a SFHA) and SMP 40, the City or applicant shall obtain from the Federal Emergency Management Agency (FEMA), a Letter of Map Revision (LOMR).*	Federal Emergency Management Agency Chief Building Official	Prior to Building Permit issuance for SMP 39 (if buildings are determined to be within a Special Flood Hazard Zone [SFHA]) and SMP 40	
Noise						
4.6-1	Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or	*4.6-1(a)*	*Prior to issuance of a grading permit for SMP 40, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included*	City of Livermore Community Development Department	Prior to issuance of a grading permit for SMP 40	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
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	noise ordinance, or applicable standards of other agencies.	*within the plans and specifications for SMP 40, subject to review and approval by the City of Livermore Community Development Department. The project applicant shall demonstrate, to the satisfaction of the City that the project complies with the following:* • *Consistent with the Livermore Municipal Code, construction shall be limited to weekdays between the hours of 7:00 AM and 8:00 PM and Saturdays through Sunday between the hours of 9:00 AM and 6:00 PM.* • *Either a temporary noise barrier shall be built prior to development of the planned berm on the east side of the project site, or the berm shall be built prior to construction activities. The barrier/berm shall be a minimum of 10 feet tall. The barrier can be field-built provided it meets the following criteria:* ○ *The barrier shall be constructed to have a minimum surface density of four pounds per square foot (psf). For example, a stud wall with exterior-grade plywood sheathing and a stucco finish (or two layers of 5/8-inch thick plywood).* ○ *The barrier shall be free of cracks, and drainage holes/slots along the bottom of the barrier shall be kept to a minimum.*			

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		Where needed, drainage holes/slots shall be covered by one psf mass-loaded vinyl flaps (e.g., Kinetics KNM-100) so water can flow around the vinyl and still drain. ○ *Joints between sheathing layers shall be offset by 16 inches minimum.* • *Contractors shall use "quiet" models of air compressors and other stationary noise sources, where technology exists.* • *Internal combustion engine-driven equipment shall be equipped with mufflers which are in good condition and appropriate for the equipment.* • *Stationary noise-generating equipment, such as air compressors and portable power generators, shall be located as far away as possible from adjacent property lines.* • *Staging areas and construction material areas shall be located as far away as feasible from adjacent residences.* • *All unnecessary idling of internal combustion engines should be prohibited.* • *The contractor shall designate a "noise disturbance construction superintendent" who will be responsible for tracking and responding to any complaints about*			

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
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		construction noise. The noise disturbance construction superintendent shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall require that reasonable measures are implemented to correct the problem. The telephone number for the noise disturbance construction superintendent shall be posted at the construction site and included in any construction notices sent to neighbors.			
		4.6-1(b) Prior to issuance of a grading permit for the chosen off-site trail connection option, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included within the plans and specifications for the trail connection option, subject to review and approval by the City of Livermore Community Development Department. The project applicant shall demonstrate, to the satisfaction of the City, that the project complies with the following: • *All heavy construction equipment used on the proposed project shall be maintained in good operating condition, with all internal*	City of Livermore Community Development Department	Prior to issuance of a grading permit for the chosen off-site trail connection option	

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		combustion, engine-driven equipment fitted with intake and exhaust mufflers that are in good condition. • *All mobile or fixed noise producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency shall comply with such regulations while involved with a project activity.* • *Where feasible, electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment.* • *All stationary noise-generating equipment shall be located as far away as possible from the nearest residential uses.* • *Signs prohibiting unnecessary idling of internal combustion engines shall be posted at entrances to construction sites and at construction equipment staging areas.* • *The use of noise-producing signals, including horns, whistles, alarms and bells shall be for safety warning purposes only.* • *The use of temporary sound barriers shall be incorporated along the outer work area of the construction site, east of Isabel Avenue/SR 84. Barrier height and location(s) shall be determined by a qualified acoustical*			

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			engineer to ensure that the resultant construction noise levels at the nearest residence would meet the applicable standard. The sound barrier fencing shall consist of 0.5-inch plywood or minimum STC 27 sound curtains placed to shield nearby sensitive receptors. The plywood barrier shall be free from gaps, openings, or penetrations to ensure maximum performance.			
Public Services, Utilities, and Service Systems						
4.7-8	Increase in demand for utilities and service systems associated with the proposed project, in combination with future buildout of the Livermore General Plan.	*4.7-8(a)*	*Prior to approval of improvement plans, the project applicant shall pay the applicable sewer fair share fees to the City of Livermore Community Development Department. Payment of such fees shall be made in compliance with Livermore Municipal Code Chapter 13.28.*	City of Livermore Community Development Department	Prior to approval of improvement plans	
		4.7-8(b)	*In conjunction with submittal of improvement plans for SMP 39 or SMP 40, whichever is developed second as part of the proposed project, the project applicant shall submit an analysis of the pumping capacity available at the Airport Lift Station to convey additional flows generated by SMP 39 and SMP 40. The lift station capacity analysis shall be prepared by a registered civil engineer. According to the 2022 Airport Lift Station Analysis prepared by West Yost Associates, the City of Livermore has indicated that the pumping capacity necessary to accommodate SMP 39 and SMP 40 would*	City of Livermore Community Development Department	In conjunction with submittal of improvement plans for SMP 39 or SMP 40, whichever is developed second as part of the proposed project	

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		be 2,088 gallons per minute (gpm). The subsequent evaluation shall confirm the aforementioned estimate and be submitted for review and approval to the City of Livermore Community Development Department. *If the Airport Lift Station pumping capacity is determined to be inadequate, the project applicant shall ensure the pumping capacity is increased to the necessary gpm determined by the subsequent analysis, with all design recommendations contained therein incorporated into the improvement plans for SMP 39 or SMP 40, whichever is developed second as part of the proposed project. Incorporation of the design recommendations to increase the Airport Lift Station pumping capacity shall be submitted for review and approval to the City Engineer.*			
Transportation					
4.8-1	Conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities.	*4.8-1* *Prior to grading permit issuance for the SMP 39 and SMP 40 sites, as well as the chosen off-site trail connection option, the project applicant shall prepare a Construction Traffic Management Plan for review and approval by the City Engineer. The plan shall include the following:* • *A project staging plan to maximize on-site storage of materials and equipment;* • *A set of comprehensive traffic control measures, including scheduling of*	City Engineer	Prior to grading permit issuance for the SMP 39 and SMP 40 sites, as well as the chosen off-site trail connection option	

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		major truck trips and deliveries to avoid peak hours; lane closure proceedings; signs, cones and other warning devices for drivers; and designation of construction access routes; • *Provisions for maintaining adequate emergency access to the project site;* • *Permitted construction hours, per City of Livermore standards;* • *Designated locations for construction staging areas;* • *Identification of parking areas for construction employees, site visitors, and inspectors, including on-site locations;* • *Signs posted at the entrances to the construction sites noting who to contact if there are questions or concerns, along with a contact phone number; and* • *Provisions for street sweeping to remove construction-related debris on public streets.*			
4.8-3	Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	*4.8-3* *Prior to the issuance of the first building permit, the project applicant shall be required to develop a Transportation Demand Management (TDM) Program for SMP 39 and SMP 40. The TDM Program shall be monitored by the project applicant/operator on an annual basis to determine the efficacy of the selected TDM strategies in achieving the reduction below the regional average VMT per employee of*	City of Livermore Engineering Division Chief Building Official	Prior to the issuance of the first building permit	

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		three percent (i.e., the performance target). An Annual Status Report on the TDM Program shall be submitted to the City of Livermore Engineering Division beginning a year after the issuance of any certificate of occupancy and shall include details on the TDM strategies, including an Employer Carpool Program which has a goal to reduce VMT per employee by approximately four percent and, thus, would meet and exceed the performance target. The Employer Carpool Program shall implement a ridesharing program and establish a permanent transportation management association with funding requirements for employers. Data shall be collected in October of each year and the Annual Status Report shall be submitted by December 31st of each year. The report shall be prepared in the form and format designated by the City. The data shall include project-generated VMT estimates compatible with the methodology used to estimate the benchmark VMT so that performance comparisons can be made. If the Annual Status Report demonstrates that the project is not in compliance with the performance target set forth in this mitigation measure, the project must incorporate additional TDM strategies to meet the performance target in coordination with City staff. The project applicant/operator may propose new TDM strategies that develop over time to further reduce project-generated VMT if substantial			

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		evidence is provided to support the efficacy of the strategy. If the Annual Status Reports demonstrate that the performance target has been achieved for five consecutive years once SMP 39 and SMP 40 are both fully occupied and operational, the project shall no longer need to provide annual reporting. The five-year reporting requirement shall reset when a new use occupies any portion of the SMP 39 or SMP 40 property.			
Initial Study					
I-a,b.	Would the project have a substantial adverse effect on a scenic vista? Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	*I-1.*	*In the event that Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84 is the selected Trail Connection Option for the proposed project, improvement plans associated with the proposed above-grade crossing shall be submitted to the City's Community Development Department for review and approval to ensure that the proposed above-grade crossing is constructed using soft earth tone colors that help the bridge blend in with the surrounding landscape.*	City of Livermore Community Development Department	In the event that Trail Connection Option 3 is the selected trail connection option for the proposed project	
VII-a.iii, a.iv,c,d.	Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: seismic-related ground failure, including liquefaction or landslides?	*VII-1.*	*All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to the issuance of building permits or grading permits, whichever comes first, to ensure that all geotechnical recommendations specified in the geotechnical recommendations*	City Engineer Chief Building Official Qualified Geotechnical Engineer	Prior to issuance of building permits or grading permits, whichever comes first	

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	Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? Would the project be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	*specified in the Geotechnical Investigation prepared for the proposed project by Cornerstone Earth Group are properly incorporated and utilized in the project design.* *VII-2.* *In the event that Trail Connection Option 2 – Undercrossing at Isabel Bridge or Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84 is the selected Trail Connection Option for the proposed project, in conjunction with the submittal of improvement plans associated with the proposed above-grade crossing, a final design-level geotechnical report shall be prepared and submitted to the City for review and approval. The site-specific geotechnical report shall be prepared by a State-registered civil engineer with the purpose of observing and sampling the subsurface conditions encountered at the proposed undercrossing or above-grade crossing sites and providing conclusions and recommendations relative to each crossing, as proposed. The recommendations presented therein shall be based on analysis of the data obtained during the geotechnical investigation and the local experience of the civil engineer regarding similar soil and geologic conditions. All recommendations set forth in the final design-level geotechnical report shall be appropriately incorporated into the design of the project*	City Engineer	In the event that Trail Connection Option 2 or Trail Connection Option 3 is the selected trail connection option for the proposed project in conjunction with the submittal of improvement plans associated with the proposed above-grade crossing	

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			and shall be subject to review and approval by the City Engineer.			
VII-f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	*VII-3.*	*The applicant shall retain the services of a professional paleontologist to educate the construction crew that will be conducting grading and excavation at the project site, as well as the off-site trail improvement areas. The education shall consist of an introduction to the geology of the project site and the kinds of fossils that may be encountered, as well as what to do in case of a discovery. Should any vertebrate fossils (e.g., teeth, bones), an unusually large or dense accumulation of intact invertebrates, or well-preserved plant material (e.g., leaves) be unearthed by the construction crew, then ground-disturbing activity shall be diverted to another part of the project site and the paleontologist shall be called on-site to assess the find and, if significant, recover the find in a timely matter. Finds determined significant by the paleontologist shall then be conserved and deposited with a recognized repository, such as the University of California Museum of Paleontology. The alternative mitigation would be to leave the significant finds in place, determine the extent of significant deposit, and avoid further disturbance of the significant deposit. Proof of the construction crew awareness training shall be submitted to the City's Community Development Department in the form of a copy of training materials and the completed training attendance roster.*	City of Livermore Community Development Department	Prior to any ground-disturbing activities	

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IX-b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	*IX-1. Prior to any ground-disturbing activities, the groundwater well observed along the western boundary of SMP 39 shall be assessed to determine whether it is located on-site. If the well is determined to be located on-site, the project applicant shall hire a licensed contractor to obtain the applicable abandonment permit from Alameda County Department of Environmental Health (ACDEH), and properly abandon the on-site well for review and approval by the ACDEH.* *In addition, the licensed contractor shall contact Zone 7 regarding its well located towards the middle of the SMP 39 site, and if feasible, obtain the applicable abandonment permit from ACDEH to properly abandon the well. Alternatively, if required by Zone 7, the applicant shall implement other measures identified by Zone 7, such as providing any necessary upgrades or adjustments to the well and/or well box elevation to match the final grade.*	Alameda County Department of Environmental Health (ACDEH) City of Livermore Community Development Department	Prior to any ground-disturbing activities	
		IX-2. In the event that Trail Connection Option 2 – Undercrossing at Isabel Bridge or Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84 is the selected Trail Connection Option for the proposed project, in conjunction with the submittal of improvement plans associated with the proposed above-grade crossing, a Phase I Environmental Site Assessment (ESA) shall	City of Livermore Community Development Department	In the event that Trail Connection Option 2 or Trail Connection Option 3 is the selected trail connection option for the proposed project in conjunction with the	

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		be prepared and submitted to the City for review and approval. The Phase I Environmental Site Assessment (ESA) shall be prepared by a licensed contractor with the purpose of observing and assessing the conditions encountered at the proposed undercrossing or above-grade crossing sites and providing conclusions and recommendations relative to any hazardous conditions or materials identified on-site. All recommendations set forth in the Phase I Environmental Site Assessment (ESA) shall be appropriately incorporated into the project and shall be subject to review and approval by the City of Livermore Community Development Department.		submittal of improvement plans associated with the proposed above-grade crossing	

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4.3-3	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS, or State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	*Trail Connection Option 2 – Undercrossing at Isabel Bridge* *4.3-3(a) Prior to the initiation of ground-disturbing activities, the project applicant shall submit a formal wetland delineation to the USACE for Trail Connection Option 2 for verification to determine the extent of all hydrological features, their jurisdictional status, and the extent of any impacts resulting from the proposed project. A copy of the wetland delineation and USACE verification letter shall be submitted to the City of Livermore Community Development Department. If Trail Connection Option 2 will result in impacts to features under the USACE's jurisdiction, Mitigation Measure 4.3-3(e) shall be required.* *Trail Connection Option 2 – Undercrossing at Isabel Bridge* *4.3-3(b) In the event that Trail Connection Option 2 – Undercrossing at Isabel Bridge is the selected Trail Connection Option for the proposed project, implement Mitigation Measures 4.5-1 and 4.5-2 related to the preparation of a SWPPP and final Stormwater Control Plan and Maintenance Plan during project construction and operations, respectively.* *SMP 40 and Trail Connection Option 2* *4.3-3(c) Prior to the commencement of ground-*	City of Livermore Community Development Department USACE City's Public Works Director City Engineer City of Livermore Public Works Department City of Livermore	Prior to initiation of ground-disturbing activities Prior to the issuance of any grading permits Prior to commencement of	

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		disturbing activities for SMP 40 or Trail Connection Option 2, if selected, the project contractor shall notify CDFW pursuant to Section 1600 of the CFGC. The notification shall include a description of all of the activities associated with the proposed project, not just those associated with the drainages and/or riparian vegetation. Impacts shall be outlined in the notification and are expected to be in substantial conformance with the impacts to biological resources outlined in the Biological Resources Assessments prepared for SMP 40 by Monk & Associates. Impacts for each activity shall be broken down by temporary and permanent impacts. A description of the proposed mitigation for biological resource impacts shall be outlined per activity and then by temporary and permanent impact. Information regarding project-specific drainage and hydrology changes resulting from project implementation shall be provided, as well as a description of stormwater treatment methods. Minimization and avoidance measures shall be proposed, as appropriate, and may include the following: • *To avoid fuels, lubricants, soils and other pollutants from entering Arroyo Mocho, wildlife friendly hay wattles (that is, no mono-filament netting) and silt fencing shall be installed at*	Community Development Department	ground-disturbing activities for SMP 40 or Trail Connection Option 2 (if selected)	

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		the top of bank. The use of mulch or any other substitute that may enter into the creek shall be prohibited. • *Staging, operation and maintenance of heavy duty construction equipment shall be located away from Arroyo Mocho at all times and well outside of the riparian corridor unless the equipment is needed to specifically work on the realignment of Arroyo Mocho or the outfalls for the project.* • *To mitigate for any impacts to the riparian corridor of Arroyo Mocho, disturbed areas shall be revegetated with native riparian plant species. Replacement of riparian trees to be removed shall be planted near the creek as feasible and/or adjacent to the existing limits of the riparian corridor to contribute to the existing riparian canopy. Riparian plantings shall be maintained for a minimum of 5 years to ensure that the canopy is enhanced and the understory restored.* • *Non-native and invasive ornamental landscaping shall be precluded from use proximate to Arroyo Mocho.* • *To avoid debris from entering Arroyo Mocho, the final project design shall provide for enclosed and accessible trash receptacles (located outside of the riparian corridor).*			

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		• *New lighting introduced by the project shall be downcast and precluded from spilling over to the riparian corridor as direct lighting along creek corridors has a negative impact on nocturnal wildlife.* *Mitigation shall not result in a net loss of a Sensitive Natural Community. Written verification of Section 1600 of the LSAA shall be submitted to the City of Livermore Community Development Department.* *Trail Connection Option 2 – Undercrossing at Isabel Bridge* *4.3-3(d)* *Prior to the initiation of groundbreaking activity associated with Trail Connection Option 2, if selected, the project applicant shall ensure that authorization pursuant to the Clean Water Act (CWA) Section 401 from the San Francisco Bay Regional Water Quality Control board (RWQCB) is obtained.* *If Trail Connection Option 2 will result in impacts to features under the RWQCB's jurisdiction, the construction contractor shall adhere to all conditions outlined in the permit. The project applicant shall ensure that the proposed project replaces, restores, or enhances on a "no net loss" basis (in accordance with the RWQCB) the acreage of all riparian habitat and waters of the State that would be removed, lost, and/or*	The San Francisco Bay Regional Water Quality Control board (RWQCB)	Prior to the initiation of ground-breaking activity associated with Trail Connection Option 2 (if selected)	

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		degraded due to project implementation by methods agreeable to the RWQCB and the City, as appropriate, depending on agency jurisdiction, and as determined during the Section 401 permitting processes. Methods include, but are not limited to implementation of a riparian enhancement planting plan and/or tree planting mitigation at a 1:1 ratio, or as otherwise prescribed by the RWQCB. *Trail Connection Option 2 – Undercrossing at Isabel Bridge* *4.3-3(e) If it is determined that work below the OHWM cannot be avoided for Trail Connection Option 2, prior to the issuance of grading permits, the project applicant shall apply for a CWA Section 404 permit from the USACE. Waters that would be lost or disturbed shall be restored, replaced, or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement, including the purchase of credits from a USACE approved mitigation bank at a 1:1 ratio, shall be at a location and by methods acceptable to the USACE. Documentation of compliance with the provisions set forth herein shall be submitted to the City of Livermore Community Development Department for verification.*	City of Livermore Community Development Department USACE	Prior to issuance of grading permits, if it is determined that work below the Ordinary High Water Mark (OHWM) cannot be avoided for Trail Connection Option 2 (if selected)	
Cultural and Tribal Cultural Resources					
4.4-2	Cause a substantial adverse change in the	*4.4-2 In the event a potentially significant cultural resource is encountered during subsurface*	The Confederated	In the event a potentially	

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	significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5.	*earthwork activities, all construction activities within a 100-foot radius of the find shall cease and workers shall avoid altering the materials until an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology has evaluated the find. The project applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The qualified archeologist shall make recommendations to the City of Livermore on the measures that shall be implemented to protect the discovered resources, including, but not limited to, culturally appropriate temporary and permanent treatment, which may include avoidance of cultural resources, in-place preservation, and/or reburial on the project site so the resource(s) are not subject to further disturbance in perpetuity. In addition, The Confederated Villages of Lisjan shall be notified of the discovery. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. If necessary, excavation and evaluation of the finds shall*	Villages of Lisjan City of Livermore Community Development Department The Northwest Information Center (NWIC) The State Historic Preservation Office (SHPO)	significant cultural resource is encountered during subsurface earthwork activities	

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		comply with Section 15064.5 of the CEQA Guidelines. *Potentially significant archaeological site indicators include obsidian and chert flakes and chipped stone tools; grinding and mashing implements (e.g., slabs and handstones and mortars and pestles); bedrock outcrops and boulders with mortar cups; and locally darkened midden soils. Midden soils may contain a combination of any of the previously listed items with the possible addition of bone and shell remains, and fire-affected stones. Any previously undiscovered resources found during construction within the project site shall be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and will be submitted to the City of Livermore, the Northwest Information Center (NWIC), and the State Historic Preservation Office (SHPO), as required.*			
4.4-3	Disturb any human remains, including those interred outside of dedicated cemeteries.	*4.4-3* *In the event of the accidental discovery or recognition of any human remains, further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby*	Alameda County Coroner Native American Heritage Commission (NAHC)	In the event of the accidental discovery or recognition of any human remains	

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		area suspected to contain human remains shall occur until the Alameda County Coroner has been notified to determine if an investigation into the cause of death is required. If the County Coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission (NAHC), which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. The potential exists that the NAHC may be unable to identify a most likely descendant, the most likely descendant fails to make a recommendation within 48 hours after notification by the NAHC, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the NAHC fails to provide a measure acceptable to the landowner. In such case, the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the NAHC shall be submitted as proof of compliance to the City of Livermore Community Development Department.	City of Livermore Community Development Department		

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4.4-4	Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074.	*4.4-4*	*Implement Mitigation Measures 4.4-2 and 4.4-3.*	See Mitigation Measures 4.4-2 and 4.4-3	See Mitigation Measures 4.4-2 and 4.4-3	
Hydrology and Water Quality						
4.5-1	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality during construction.	*4.5-1*	*Prior to issuance of any grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the San Francisco Bay RWQCB. The contractor shall file the Notice of Intent (NOI) and associated fee to the SWRCB. A separate SWPPP shall be prepared for SMP 39 and SMP 40 (including the off-site trail connection area) if the components of the project are not constructed concurrently. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable. Construction (temporary) BMPs for the project may include, but are not limited to: fiber rolls, straw bale barrier, straw wattles, storm drain inlet protection, velocity dissipation devices, silt fences, wind erosion control, stabilized construction entrance, hydroseeding, revegetation techniques, and dust control measures. The SWPPP shall be submitted to the City's Director of Public Works and the City Engineer for review and*	City of Livermore Public Works Director City Engineer	Prior to issuance of any grading permits	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
Impact Number	**Impact**	**Mitigation Measure**		**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
			approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.			
4.5-2	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality during operations.	*4.5-2(a)*	*Prior to approval of final project improvement plans for SMP 39, SMP 40, and the selected off-site trail connection option, a final Stormwater Control Plan and Maintenance Plan shall be submitted to the City Director of Public Works, and the City Engineer for review and approval. A separate Stormwater Control Plan and Maintenance Plan shall be prepared for SMP 39, SMP 40, and the selected off-site trail connection option, if the components of the project are not constructed concurrently. The final Stormwater Control Plan and Maintenance Plan shall be in compliance with all applicable provisions of the C.3 Standards, and shall meet the standards of the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment. Site design measures, source control measures, hydromodification management, and Low Impact Development (LID) standards, as necessary, shall be incorporated into the design and shown on the improvement*	City of Livermore Public Works Director City Engineer City of Livermore Public Works Department	Prior to approval of final project improvement plans for SMP 39, SMP 40, and the selected off-site trail connection option	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
Impact Number	**Impact**	**Mitigation Measure**		**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
			plans. The final plans shall include calculations demonstrating that the water quality BMPs are appropriately sized, using methodology in the CASQA Stormwater BMP Handbook for New Development and Redevelopment. The final plans shall be submitted to the Public Works Department for review and approval.			
		4.5-2(b)	*Implement Mitigation Measures 4.3-3(b) through 4.3-3(e).*	See Mitigation Measures 4.3-3(b) through 4.3-3(e)	See Mitigation Measures 4.3-3(b) through 4.3-3(e)	
4.5-4	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial	*4.5-4*	*Prior to approval of final project improvement plans for SMP 39, SMP 40, and the selected off-site trail connection option, a final drainage plan shall be submitted to the City Director of Public Works, and the City Engineer for review and approval demonstrating the project's compliance with all State stormwater standards and requirements. A separate drainage plan shall be prepared for SMP 39, SMP 40, and the selected off-site trail connection option, if the components of the project are not constructed concurrently. The final drainage plan shall identify the water quality treatment and source control measures needed to ensure that stormwater runoff from the proposed project is adequately treated and peak flows do not exceed the capacity of the receiving storm drainage system.*	City of Livermore Public Works Director City Engineer	Prior to approval of final project improvement plans for SMP 39, SMP 40, and the selected off-site trail connection option	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
Impact Number	**Impact**	**Mitigation Measure**		**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
	additional sources of polluted runoff; or result in substantial erosion or siltation on- or off-site.					
4.5-5	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows, or in flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation.	*4.5-5*	*Prior to Building Permit issuance for SMP 39 (if buildings are determined to be within a SFHA) and SMP 40, the City or applicant shall obtain from the Federal Emergency Management Agency (FEMA), a Letter of Map Revision (LOMR).*	Federal Emergency Management Agency Chief Building Official	Prior to Building Permit issuance for SMP 39 (if buildings are determined to be within a Special Flood Hazard Zone [SFHA]) and SMP 40	
Noise						
4.6-1	Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	*4.6-1*	*Prior to issuance of a grading permit for the chosen off-site trail connection option, the project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive land uses and include specific noise management measures to be included within the plans and specifications for the trail connection option, subject to review and approval by the City of Livermore Community Development Department. The project applicant shall demonstrate, to the*	City of Livermore Community Development Department	Prior to issuance of a grading permit for the chosen off-site trail connection option	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		satisfaction of the City, that the project complies with the following: • *All heavy construction equipment used on the proposed project shall be maintained in good operating condition, with all internal combustion, engine-driven equipment fitted with intake and exhaust mufflers that are in good condition.* • *All mobile or fixed noise producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency shall comply with such regulations while involved with a project activity.* • *Where feasible, electrically-powered equipment shall be used instead of pneumatic or internal combustion powered equipment.* • *All stationary noise-generating equipment shall be located as far away as possible from the nearest residential uses.* • *Signs prohibiting unnecessary idling of internal combustion engines shall be posted at entrances to construction sites and at construction equipment staging areas.* • *The use of noise-producing signals, including horns, whistles, alarms and*			

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
Impact Number	**Impact**	**Mitigation Measure**		**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
			bells shall be for safety warning purposes only. • *The use of temporary sound barriers shall be incorporated along the outer work area of the construction site, east of Isabel Avenue/SR 84. Barrier height and location(s) shall be determined by a qualified acoustical engineer to ensure that the resultant construction noise levels at the nearest residence would meet the applicable standard. The sound barrier fencing shall consist of 0.5-inch plywood or minimum STC 27 sound curtains placed to shield nearby sensitive receptors. The plywood barrier shall be free from gaps, openings, or penetrations to ensure maximum performance.*			
Public Services, Utilities, and Service Systems						
4.7-8	Increase in demand for utilities and service systems associated with the proposed project, in combination with future buildout of the Livermore General Plan.	*4.7-8(a)*	*Prior to approval of improvement plans, the project applicant shall pay the applicable sewer fair share fees to the City of Livermore Community Development Department. Payment of such fees shall be made in compliance with Livermore Municipal Code Chapter 13.28.*	City of Livermore Community Development Department	Prior to approval of improvement plans	
		4.7-8(b)	*In conjunction with submittal of improvement plans for SMP 39 or SMP 40, whichever is developed second as part of the proposed project, the project applicant shall submit an*	City of Livermore Community	In conjunction with submittal of improvement plans for SMP 39 or SMP	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		analysis of the pumping capacity available at the Airport Lift Station to convey additional flows generated by SMP 39 and SMP 40. The lift station capacity analysis shall be prepared by a registered civil engineer. According to the 2022 Airport Lift Station Analysis prepared by West Yost Associates, the City of Livermore has indicated that the pumping capacity necessary to accommodate SMP 39 and SMP 40 would be 2,088 gallons per minute (gpm). The subsequent evaluation shall confirm the aforementioned estimate and be submitted for review and approval to the City of Livermore Community Development Department. *If the Airport Lift Station pumping capacity is determined to be inadequate, the project applicant shall ensure the pumping capacity is increased to the necessary gpm determined by the subsequent analysis, with all design recommendations contained therein incorporated into the improvement plans for SMP 39 or SMP 40, whichever is developed second as part of the proposed project. Incorporation of the design recommendations to increase the Airport Lift Station pumping capacity shall be submitted for review and approval to the City Engineer.*	Development Department	40, whichever is developed second as part of the proposed project	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
Impact Number	**Impact**	**Mitigation Measure**		**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
Transportation						
4.8-1	Conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities.	*4.8-1*	*Prior to grading permit issuance for the SMP 39 and SMP 40 sites, as well as the chosen off-site trail connection option, the project applicant shall prepare a Construction Traffic Management Plan for review and approval by the City Engineer. The plan shall include the following:* • *A project staging plan to maximize on-site storage of materials and equipment;* • *A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak hours; lane closure proceedings; signs, cones and other warning devices for drivers; and designation of construction access routes;* • *Provisions for maintaining adequate emergency access to the project site;* • *Permitted construction hours, per City of Livermore standards;* • *Designated locations for construction staging areas;* • *Identification of parking areas for construction employees, site visitors, and inspectors, including on-site locations;* • *Signs posted at the entrances to the construction sites noting who to*	City Engineer	Prior to grading permit issuance for the SMP 39 and SMP 40 sites, as well as the chosen off-site trail connection option	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
Impact Number	**Impact**	**Mitigation Measure**		**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
			contact if there are questions or concerns, along with a contact phone number; and • *Provisions for street sweeping to remove construction-related debris on public streets.*			
4.8-3	Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	*4.8-3*	*Prior to the issuance of the first building permit, the project applicant shall be required to develop a Transportation Demand Management (TDM) Program for SMP 39 and SMP 40. The TDM Program shall be monitored by the project applicant/operator on an annual basis to determine the efficacy of the selected TDM strategies in achieving the reduction below the regional average VMT per employee of three percent (i.e., the performance target). An Annual Status Report on the TDM Program shall be submitted to the City of Livermore Engineering Division beginning a year after the issuance of any certificate of occupancy and shall include details on the TDM strategies, including an Employer Carpool Program which has a goal to reduce VMT per employee by approximately four percent and, thus, would meet and exceed the performance target. The Employer Carpool Program shall implement a ridesharing program and establish a permanent transportation management association with funding requirements for employers. Data shall be collected in October of each year and the Annual Status*	City of Livermore Engineering Division Chief Building Official	Prior to the issuance of the first building permit	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		Report shall be submitted by December 31st of each year. The report shall be prepared in the form and format designated by the City. The data shall include project-generated VMT estimates compatible with the methodology used to estimate the benchmark VMT so that performance comparisons can be made. If the Annual Status Report demonstrates that the project is not in compliance with the performance target set forth in this mitigation measure, the project must incorporate additional TDM strategies to meet the performance target in coordination with City staff. The project applicant/operator may propose new TDM strategies that develop over time to further reduce project-generated VMT if substantial evidence is provided to support the efficacy of the strategy. If the Annual Status Reports demonstrate that the performance target has been achieved for three consecutive years once SMP 39 and SMP 40 are both fully occupied and operational, the project shall no longer need to provide annual reporting.			
Initial Study					
I-a,b.	Would the project have a substantial adverse effect on a scenic vista? Would the project substantially damage scenic resources,	*I-1.*	*In the event that Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84 is the selected Trail Connection Option for the proposed project, improvement plans associated with the proposed above-grade crossing shall be submitted to the City's Community Development Department for*	City of Livermore Community Development Department	In the event that Trail Connection Option 3 is the selected trail connection option for the proposed project	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
	including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	*review and approval to ensure that the proposed above-grade crossing is constructed using soft earth tone colors that help the bridge blend in with the surrounding landscape.*			
VII-a.iii, a.iv,c,d.	Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: seismic-related ground failure, including liquefaction or landslides? Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? Would the project be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct	*VII-1.* *All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to the issuance of building permits or grading permits, whichever comes first, to ensure that all geotechnical recommendations specified in the geotechnical recommendations specified in the Geotechnical Investigation prepared for the proposed project by Cornerstone Earth Group are properly incorporated and utilized in the project design.* *VII-2.* *In the event that Trail Connection Option 2 – Undercrossing at Isabel Bridge or Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84 is the selected Trail Connection Option for the proposed project, in conjunction with the submittal of improvement plans associated with the proposed above-grade crossing, a final design-level geotechnical report shall be prepared and submitted to the City for review and approval. The site-specific geotechnical report shall be prepared by a State-*	City Engineer Chief Building Official Qualified Geotechnical Engineer City Engineer	Prior to issuance of building permits or grading permits, whichever comes first In the event that Trail Connection Option 2 or Trail Connection Option 3 is the selected trail connection option for the proposed project in conjunction with the submittal of improvement plans associated with the	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
	or indirect risks to life or property?	*registered civil engineer with the purpose of observing and sampling the subsurface conditions encountered at the proposed undercrossing or above-grade crossing sites and providing conclusions and recommendations relative to each crossing, as proposed. The recommendations presented therein shall be based on analysis of the data obtained during the geotechnical investigation and the local experience of the civil engineer regarding similar soil and geologic conditions. All recommendations set forth in the final design-level geotechnical report shall be appropriately incorporated into the design of the project and shall be subject to review and approval by the City Engineer.*		proposed above-grade crossing	
VII-f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	*VII-3. The applicant shall retain the services of a professional paleontologist to educate the construction crew that will be conducting grading and excavation at the project site, as well as the off-site trail improvement areas. The education shall consist of an introduction to the geology of the project site and the kinds of fossils that may be encountered, as well as what to do in case of a discovery. Should any vertebrate fossils (e.g., teeth, bones), an unusually large or dense accumulation of intact invertebrates, or well-preserved plant material (e.g., leaves) be unearthed by the construction crew, then ground-disturbing activity shall be diverted to another part of the project site*	City of Livermore Community Development Department	Prior to any ground-disturbing activities	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project						
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			and the paleontologist shall be called on-site to assess the find and, if significant, recover the find in a timely matter. Finds determined significant by the paleontologist shall then be conserved and deposited with a recognized repository, such as the University of California Museum of Paleontology. The alternative mitigation would be to leave the significant finds in place, determine the extent of significant deposit, and avoid further disturbance of the significant deposit. Proof of the construction crew awareness training shall be submitted to the City's Community Development Department in the form of a copy of training materials and the completed training attendance roster.			
IX-b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	*IX-1.*	*Prior to any ground-disturbing activities, the groundwater well observed along the western boundary of SMP 39 shall be assessed to determine whether it is located on-site. If the well is determined to be located on-site, the project applicant shall hire a licensed contractor to obtain the applicable abandonment permit from Alameda County Department of Environmental Health (ACDEH), and properly abandon the on-site well for review and approval by the ACDEH.* *In addition, the licensed contractor shall contact Zone 7 regarding its well located towards the middle of the SMP 39 site, and if feasible, obtain the applicable*	Alameda County Department of Environmental Health (ACDEH) City of Livermore Community Development Department	Prior to any ground-disturbing activities	

MITIGATION MONITORING AND REPORTING PROGRAM SMP 39/SMP 40 Project					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		abandonment permit from ACDEH to properly abandon the well. Alternatively, if required by Zone 7, the applicant shall implement other measures identified by Zone 7, such as providing any necessary upgrades or adjustments to the well and/or well box elevation to match the final grade.			
		IX-2. In the event that Trail Connection Option 2 – Undercrossing at Isabel Bridge or Trail Connection Option 3 – Overcrossing of Isabel Avenue/SR 84 is the selected Trail Connection Option for the proposed project, in conjunction with the submittal of improvement plans associated with the proposed above-grade crossing, a Phase I Environmental Site Assessment (ESA) shall be prepared and submitted to the City for review and approval. The Phase I Environmental Site Assessment (ESA) shall be prepared by a licensed contractor with the purpose of observing and assessing the conditions encountered at the proposed undercrossing or above-grade crossing sites and providing conclusions and recommendations relative to any hazardous conditions or materials identified on-site. All recommendations set forth in the Phase I Environmental Site Assessment (ESA) shall be appropriately incorporated into the project and shall be subject to review and approval by the City of Livermore Community Development Department.	City of Livermore Community Development Department	In the event that Trail Connection Option 2 or Trail Connection Option 3 is the selected trail connection option for the proposed project in conjunction with the submittal of improvement plans associated with the proposed above-grade crossing	

APPENDIX E
Sample Implementation Documents

The responsibility for implementation of the policies set forth in the compatibility plans adopted by airport land use commissions rests largely with the affected local jurisdictions. Implementation tools fall into the categories of notification and regulation. The state requires certain notification requirements effective January 1, 2004 (as a result of Assembly Bill 2776). Additional notification, in the form of a recorded deed notice, may also be appropriate. Regulation may take the form of individual property restrictions (avigation easements) or additional development controls in areas within the vicinity of an airport (an airport combining zone ordinance).

Required Notification—State law requires any person who intends to offer subdivided lands within California for sale or lease to file with the Department of Real Estate an application for a public report consisting of a notice of intention and a completed questionnaire. The notice shall include, for property within an AIA to include the following notice:

> NOTICE OF AIRPORT IN VICINITY
>
> This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

Recorded Deed Notice—Deed notices are a form of buyer awareness measure whose objective is to ensure that prospective buyers of airport area property, particularly residential property, are informed about the airport's impact on the property. Unlike easements, deed notices do not convey property rights from the property owner to the airport and do not restrict the height of objects. They only document the existence of certain conditions which affect the property—such as the proximity of the airport and common occurrence of aircraft overflights at or below the airport traffic pattern altitude. ALUCs may make recording of deed notices a requirement for project approval within portions of the airport influence area where avigation easements are not essential. Included in this Appendix is sample of a deed notice (from the California Airport Land Use Planning Handbook, 2002).

Avigation Easement—Avigation easements transfer certain property rights from the owner of the underlying property to the owner of an airport. ALUCs may require avigation easement dedication as a condition for approval of development on property subject to high noise levels or a need to restrict heights of structures and trees to less than what might ordinarily occur on the property. Also, airports may require avigation easements in conjunction with programs for noise insulation of existing structures in the airport vicinity. Included in this Appendix is a sample avigation easement (from the California Airport Land Use Planning Handbook, 2002).

Airport Combining Zone Ordinance—An additional type of implementation document available to local jurisdictions is an airport combining zone ordinance. Possible components for such an ordinance are described in Table E-1.

TABLE E-1
POSSIBLE AIRPORT COMBINING ZONE COMPONENTS

An airport compatibility combining zoning ordinance might include some or all of the following components:

- **Airspace Protection**—A combining district can establish restrictions on the height of buildings, antennas, trees, and other objects as necessary to protect the airspace needed for operation of the airport. These restrictions should be based upon the current version of Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace, Subpart C. Additions or adjustment to take into account instrument approach (TERPS) surfaces should be made as necessary. Provisions prohibiting smoke, glare, bird attractions, and other hazards to flight should also be included.

- **FAA Notification Requirements**—Combining districts also can be used to ensure that project developers are informed about the need for compliance with the notification requirements of FAR Part 77. Subpart B of the regulations requires that the proponent of any project which exceeds a specified set of height criteria submit a Notice of Proposed Construction or Alteration (Form 7460-1) to the Federal Aviation Administration prior to commencement of construction. The height criteria associated with this notification requirement are lower than those spelled out in Part 77, Subpart C, which define airspace obstructions. The purpose of the notification is to determine if the proposed construction would constitute a potential hazard or obstruction to flight. Notification is not required for proposed structures that would be shielded by existing structures or by natural terrain of equal or greater height, where it is obvious that the proposal would not adversely affect air safety.

- **Maximum Densities/Intensities**—Airport noise and safety compatibility criteria are frequently expressed in terms of dwelling units per acre for residential uses and people per acre for other land uses. These standards can either be directly included in a combining zone or used to modify the underlying land use designations. For residential land uses, the correlation between the compatibility criteria and land use designations is direct. For other land uses, the method of calculating the intensity limitations needs to be defined. Alternatively, a matrix can be established indicating whether each specific type of land use is compatible with each compatibility zone. To be useful, the land use categories need to be more detailed than typically provided by general plan or zoning ordinance land use designations.

- **Open Areas for Emergency Landing of Aircraft**—In most circumstances in which an accident involving a small aircraft occurs near an airport, the aircraft is under control as it descends. When forced to make an off-airport emergency landing, pilots will usually attempt to do so in the most open area readily available. To enhance safety both for people on the ground and the occupants of aircraft, airport compatibility plans often contain criteria requiring a certain amount of open land near airports. These criteria are most effectively carried out by planning at the general or specific plan level, but may also need to be included in a combining district so that they will be applied to development of large parcels. Adequate open areas can often be provided by clustering of development on adjacent land.

TABLE E-1
POSSIBLE AIRPORT COMBINING ZONE COMPONENTS

An airport compatibility combining zoning ordinance might include some or all of the following components:

- **State Regulation of Obstructions**—State law prohibits anyone from constructing or altering a structure or permitting an object of natural growth to exceed the heights established by FAR Part 77, Subpart C, unless the FAA has determined the object would not or does not constitute a hazard to air navigation (Public Utilities Code, Section 21659). Additionally, a permit from the Department of Transportation is required for any structure taller than 500 feet above the ground unless the height is reviewed and approved by the Federal Communications Commission or the FAA (Section 21656).
- **Designation of High Noise-Impact Areas**—California state statutes require that multi-family residential structures in high-noise exposure areas be constructed so as to limit the interior noise to a Community Noise Equivalent Level of no more than 45 dB. A combining district could be used to indicate the locations where special construction techniques may be necessary in order to ensure compliance with this requirement. The combining district also could extend this criterion to single-family dwellings.
- **Areas of Special Compatibility Concern**—A significant drawback of standard general plan and zoning ordinance land use designations is that they can be changed. Uses that are currently compatible are not assured of staying that way in the future. Designation of areas of special compatibility concern would serve as a reminder that airport impacts should be carefully considered in any decision to change the existing land use designation. [A legal consideration which supports the value of this concept is that down-zoning of a property to a less intensive use is becoming more difficult. It is much better not to have inappropriately up-zoned the property in the first place.]
- **Real Estate Disclosure Policies**—The geographic extent and specific language of recommended real estate disclosure statements can be described in an airport combining zone ordinance.

Sample Avigation Easement

This indenture made this _____ day of _____, 20___, between_____ herein after referred to as Grantor, and the [Insert County or City name], a political subdivision in the State of California, hereinafter referred to as Grantee. The Grantor, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant to the Grantee, its successors and assigns, a perpetual and assignable easement over the following described parcel of land in which the Grantor holds a fee simple estate. The property which is subject to this easement is depicted as _____ on “Exhibit A” attached and is more particularly described as follows:

[Insert legal description of real property] The easement applies to the Airspace above an imaginary plane over the real property. The plane is described as follows:

The imaginary plane above the hereinbefore described real property, as such plane is defined by Part 77 of the Federal Aviation Regulations, and consists of a plane [describe approach, transition, or horizontal surface]; the elevation of said plane being based upon the _____ Airport official runway end elevation of _____ feet Above Mean Sea Level (AMSL), as determined by [Insert name and Date of Survey or Airport Layout Plan that determines the elevation] the approximate dimensions of which said plane are described and shown on Exhibit A attached hereto and incorporated herein by reference.

The aforesaid easement and right-of-way includes, but is not limited to:

1) For the use and benefit of the public, the easement and continuing right to fly, or cause or permit the flight by any and all persons, or any aircraft, of any and all kinds now or hereafter known, in, through, across, or about any portion of the Airspace hereinabove described; and

2) The easement and right to cause or create, or permit or allow to be caused or created within all space above the existing surface of the hereinabove described real property and any and all Airspace laterally adjacent to said real property, such noise, vibration, currents and other effects of air, illumination, and fuel consumption as may be inherent in, or may arise or occur from or during the operation of aircraft of any and all kinds, now or hereafter known or used, for navigation of or flight in air; and

3) A continuing right to clear and keep clear from the Airspace any portions of buildings, structures, or improvements of any kinds, and of trees or other objects, including the right to remove or demolish those portions of such buildings, structures, improvements, trees, or other things which extend into or above said Airspace, and the right to cut to the ground level and remove, any trees which extend into or above the Airspace; and

4) The right to mark and light, or cause or require to be marked or lighted, as obstructions to air navigation, any and all buildings, structures, or other improvements, and trees or other objects, which extend into or above the Airspace; and

5) The right of ingress to, passage within, and egress from the hereinabove described real property, for the purposes described in subparagraphs (3) and (4) above at reasonable times and after reasonable notice.

For and on behalf of itself, its successors and assigns, the Grantor hereby covenants with the [Insert County or City name], for the direct benefit of the real property constituting the _____ Airport hereinafter described, that neither the Grantor, nor its successors in interest or assigns will construct, install, erect, place or grow in or upon the hereinabove described real property, nor will they permit to allow, any building structure, improvement, tree or other object which extends into or above the Airspace, or which constitutes an obstruction to air navigation, or which obstructs or interferes with the use of the easement and rights-of-way herein granted.

The easements and rights-of-way herein granted shall be deemed both appurtenant to and for the direct benefit of that real property which constitutes the _____ Airport, in the [Insert County or City name], State of California; and shall further be deemed in gross, being conveyed to the Grantee for the benefit of the Grantee and any and all members of the general public who may use said easement or right-of-way, in landing at, taking off from or operating such aircraft in or about the _____ Airport, or in otherwise flying through said Airspace.

Grantor, together with its successors in interest and assigns, hereby waives its right to legal action against Grantee, its successors, or assigns for monetary damages or other redress due to impacts, as described in Paragraph (2) of the granted rights of easement, associated with aircraft operations in

the air or on the ground at the airport, including future increases in the volume or changes in location of said operations. Furthermore, Grantor, its successors, and assigns shall have no duty to avoid or mitigate such damages through physical modification of airport facilities or establishment or modification of aircraft operational procedures or restrictions. However, this waiver shall not apply if the airport role or character of its usage (as identified in an adopted airport master plan, for example) changes in a fundamental manner which could not reasonably have been anticipated at the time of the granting of this easement and which results in a substantial increase in the impacts associated with aircraft operations. Also, this grant of easement shall not operate to deprive the Grantor, its successors or assigns, of any rights which may from time to time have against any air carrier or private operator for negligent or unlawful operation of aircraft.

These covenants and agreements run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the Grantor, and, for the purpose of this instrument, the real property firstly hereinabove described is the servient tenement and said _____ Airport is the dominant tenement.

DATED: _____
STATE OF:
COUNTY OF:

On _____, before me, the undersigned, a Notary Public in and for said County and State, personally appeared _____, and _____ known to me to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same.

WITNESS my hand and official seal.

_____
Notary Public

Sample Deed Notice

A statement similar to the following should be included on the deed for any real property subject to the deed notice requirements set forth in the [Insert ALUC name] *Airport Land Use Compatibility Plan*. Such notice should be recorded by the county of [Insert County name]. Also, this deed notice should be included on any parcel map, tentative map, or final map for subdivision approval.

The *Alameda County Airport Land Use Compatibility Plan* and [Insert County/City name] Ordinance (Ordinance No. _____) identify a [Insert Airport name] Airport Influence Area. Properties within this area are routinely subject to overflights by aircraft using this public-use airport and, as a result, residents may experience inconvenience, annoyance, or discomfort arising from the noise of such operations. State law (Public Utilities Code Section 21670 et seq.) establishes the importance of public-use airports to protection of the public interest of the people

of the state of California. Residents of property near such airports should therefore be prepared to accept the inconvenience, annoyance, or discomfort from normal aircraft operations. Residents also should be aware that the current volume of aircraft activity may increase in the future in response to Alameda County population and economic growth. Any subsequent deed conveying this parcel or subdivisions thereof shall contain a statement in substantially this form.

Sample Overflight Notification

This *Overflight Notificaiton* concerns the real property situated in the City of _____, County of Alameda, State of California, described as _____ [APN]_____.

This *Overflight Notification* provides notification of the condition of the above described property in recognition of, and in compliance with, CALIFORNIA BUSINESS & PROFESSIONS CODE Section 11010 and CALIFORNIA CIVIL CODE Sections 1102.6, 1103.4, and 1353, effective January 1, 2004, and related state and local regulations and consistent with policies of the Airport Land Use Commission for Alameda County for overflight notification provided in the Livermore Municipal Airport Land Use Compatibility Plan.

NOTICE OF AIRPORT IN VICINITY: *This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.*

The Federal Aviation Administration (FAA) has regulatory authority over the operation of aircraft in flight and on the runway and taxiway surfaces at Livermore Municipal Airport. The FAA is, therefore, exclusively responsible for airspace and air traffic management, including ensuring the safe and efficient use of navigable airspace, developing air traffic rules, assigning the use of airspace and controlling air traffic. Please contact the FAA for more detailed information regarding overflight and airspace protection issues associated with the operation of aircraft.

The Airport Operator, The City of Livermore, maintains information regarding hours of operation and other relevant information regarding airport operations. Please contact your local airport operator for more detailed information regarding airport-specific operational issues including hours of operation.

This *Overflight Notification* shall run with the Property and shall be binding upon all parties having or acquiring any right, title, or interest in the Property.

Effective Date: _____, 20__

DATE: March 5, 2024

ENGINEERING CONSIDERATIONS - EXHIBIT "A"
(Subject to revision prior to final approval
by Planning Commission and City Council)

TENTATIVE TRACT MAP: 8656 (SUB21-009), APZ21-003, DA21-002

LOCATION: SMP 39 – Jack London Blvd

APPLICANT: Overton Moore Properties

Note: Special conditions are shown in standard type. Standard conditions that apply to this project are shown in italics. In addition, standard conditions of approval for this project are listed in Section II of the Development Plan Check and Procedures Manual.

1. DEFINITIONS

For the purpose of this agreement, the following words shall have the meanings respectively ascribed to them by this section:

Developer :	*Person(s) or Corporation(s) signing final map(s) and subdivision agreement(s)*
Improvement Plans:	*Construction drawings for required public and private improvements*
Services:	*Utility lateral, or any portions of a conduit cable or duct, between a utility distribution line and the site it serves*
Project:	*The work to be performed by Developer*

2. VESTING TENTATIVE MAP

Approval or conditional approval of this vesting tentative map shall not limit the City Engineer's ability to require workable designs on future grading and improvement plans based upon these Engineering Considerations and the City's standard engineering specifications and details.

In addition to these Engineering Considerations the Developer shall comply with all requirements set forth in Development Agreement 21-001.

The tract map shall include easement dedications to the public for a multi-use trail and an Emergency Vehicle Access. The tract map shall also include private easement dedications for shared access and utilities.

3. GENERAL

The project shall be in conformance with all City Ordinances, rules, regulations, and policies. The conditions listed below are particularly pertinent to this permit and shall not be construed to permit violation of other laws and policies not so listed.

All required improvements shall be constructed prior to occupancy of the new buildings on this site and in accordance with DA21-002.

A. IMPROVEMENT PLANS - Exhibit A-1

An engineered improvement plan shall be prepared by the Developer for approval by the City's Departments (including the Community Development, Public Works, Fire, and Police Department), which shall include, but not necessarily be limited to, existing site conditions, dedications, grading plans, street design and grades, curb, gutter, sidewalk and driveway grades, and type, size and location of all public works improvements as herein required. Approval of this tentative map does not constitute approval of the details shown thereon. If there is any conflict between the tentative map and these Engineering Considerations, the Engineering Considerations shall govern.

No specific phased development plan has been submitted with this tentative tract application. Therefore, all required improvements for this tentative map shall be constructed as one phase. A phased map could only be considered if a specific phasing plan is submitted for consideration as a tentative map amendment.

B. STANDARDS FOR IMPROVEMENT PLANS AND MAPS

All improvement plans and maps shall conform to the following City of Livermore documents except as modified by these engineering considerations:

1. *City of Livermore Standard Specifications and Details*
2. *Development Plan Check and Procedures Manual*

Completed final map and improvement plan checklists from the manual entitled "City of Livermore, Development Plan Check and Procedures Manual" shall be submitted with the first plan check submittal for each phase.

C. STANDARD CONDITIONS OF APPROVAL IN THE DEVELOPMENT PLAN CHECK AND PROCEDURES MANUAL

All of the standard conditions of approval for subdivisions and major projects as listed in Part II of the City of Livermore Development Plan Check and Procedures Manual apply except for the following: A-2, A-9, A-13, A-14, A-15, A-16, A-17, B-5, B-16, K-1, K-2, K-3, N-1, U-1, U-2, U-3.

D. WORK IN OTHER JURISDICTIONS

The Developer is responsible for obtaining permits and approvals for construction work and property acquisition that are required by agencies other than the City of Livermore.

Creek improvements may be subject to requirements of any or all of the following agencies: (1) California Department of Fish and Game, (2) the Army Corps of Engineers, (3) the Regional Water Quality Control Board, (4) State Department of Water Resources (5) the U.S. Fish and Wildlife Service, and (6) Alameda County Flood Control and Water Conservation District (Zone 7).

E. SPECIFIC CONDITIONS

The project is proposing to install an Emergency Vehicle Access and Storm Drain main on City owned land subject to FAA regulations and requirements. The use of the City owned land will be subject to additional requirements including but not limited to FAA approval, Consistency Determination, compensation for use of City land, appraisals, and additional mapping. All actions necessary for the project's use of City owned land shall be processed prior to the filing of the final map.

The Developer shall file a Tract Map as described in Section 2 of these Engineering Consideration and comply with the following conditions:

A. Relocate the multi-use trail along the Jack London Boulevard frontage.

B. Install trail signs per current City standards and specifications.

4. STREETS

A. SPECIFIC REQUIREMENTS:

The Developer shall offer easements and dedications for, and shall improve his share of the ultimate street widths for the following named streets in accordance with the City's General Plan:

West Jack London Boulevard

West Jack London Boulevard is a major street in the General Plan with an ultimate right-of-way width of 110 feet along the project frontage to accommodate 2 travel lanes and a bike lane in each direction separated by a 16 foot raised landscape median. The current configuration consists of one 12 foot travel lane in each direction.

Along the project frontage, the Developer shall widen West Jack London Boulevard to accommodate the following configuration in the eastbound direction:

8' bike lane
2' striped separation
12' travel lane

12' travel lane
16' raised and landscaped median

The centerline of the ultimate right-of-way for Jack London Boulevard shall be located approximately 52 feet from the existing north curb face.

The tract map shall include dedication of right-of-way for the widened portion of West Jack London Boulevard along the project frontage. Because West Jack London is planned to be realigned west of the project, the tract map shall also include a dedication for the right-of-way for the future extension of West Jack London Boulevard.

Additionally, the existing trail along the southern edge of Jack London Boulevard shall be relocated southerly outside of the new Jack London right-of-way into a new easement that will incorporate the trial, landscaping and stormwater treatment for the widened road as shown on the tentative map.

Final design of the widened Jack London Boulevard shall include but is not limited to appropriate transitions to and from the existing street; modifications to signing and striping; and any surface treatments and/or structures.

Jack London Boulevard shall be given a 1-1/2" A.C. overlay across the full width. Key cutting will be required at the conform points and along the gutter.

The widening of West Jack London Boulevard shall include the installation of street lights. The final layout of the street lights will be determined by the City Engineer during the development of improvement plans for the street widening.

Emergency Vehicle Access

The project is proposing both an on-site and off-site emergency vehicle access. Both EVAs shall be designed to be an all weather access for emergency vehicles and must be able to withstand a vehicle loading of 75,000 lbs. For the on-site EVA, the Developer shall dedicate an Emergency Vehicle Access Easement on the map to the City. For the off-site portion of the EVA the Developer shall prepare easement dedication documents for the City to grant the EVA to the project and shall enter into a maintenance agreement with the City to ensure the ensure the long term maintenance of the emergency vehicle access.

CASp Certification for Public Walkways/Sidewalks

The Developer shall have a certified CASp Specialist review and certify that the design for all pedestrian improvements within the public right-of-way or a public easement complies with the following applicable regulations: American with Disabilities Act (ADA) requirements, the Public Rights-of-Way Accessibility Guidelines (PROWAG), and the requirements found in Chapter 11B of the 2019 California Building Code. If an accessibility design cannot meet the above listed applicable standards, the Developer shall propose and the CASp Specialist shall concur with a design exception request for approval by the City Engineer or their designee. In addition, the

Developer shall have the certified CASp Specialist inspect and certify that pedestrian improvements are installed per the CASp certified design. Pedestrian improvements include new trails, walkways, sidewalks, accessible ramps, connections between existing and new pedestrian improvements, and modifications to existing pedestrian improvements within or adjacent to the project site, as shown on the approved plans.

5. TRAFFIC SIGNALS- Not Used

6. TRAFFIC IMPACT FEE CREDITS AND REIMBURSEMENTS:

A. CREDITS

The Developer will be eligible for credit against their traffic impact fee for the TIF eligible portions of the following construction: West Jack London Boulevard.

Traffic impact fee credits will be calculated at the time the subdivision agreement is prepared prior to final parcel map approval. The traffic impact fee credit for construction will be based on cost estimates for the TIF work as approved by the City Engineer. The traffic impact fee for the development will also be calculated based on the traffic impact fee per unit of development at that time to determine how TIF credits will be applied to the building permits.

7. SANITARY SEWERS

The project is proposing to install a force main to serve Lots 1-2. This force main shall connect to an on-site private pump station before connecting to the public pump station on West Jack London Boulevard. The remaining lots shall connect directly to the public sewer main in West Jack London Boulevard.

Sewer laterals with two way cleanouts behind the curb shall be installed to each lot or site before the streets are surfaced.

8. STORM WATER DRAINAGE AND TREATMENT REQUIREMENTS

A. General

1. This site is subject to the National Pollutant Discharge Elimination System (NPDES) Program. Prior to the issuance of the initial grading or building permit, the Developer shall provide evidence that the site is covered by the statewide General Permit to Discharge Storm Water associated with construction activity. This requires confirmation that a Notice of Intent (NOI) and the applicable fee was sent to the State Water Resources Control Board. In addition, the grading plans need to state: "All grading shall be in accordance with the Storm Water Pollution Prevention Plan prepared by the Developer per the Notice of Intent on file with the State Water Resources Control Board".

2. Necessary interceptor ditches shall be concrete. Field inlets and storm drainage pipe may be necessary in conjunction with concrete interceptor ditches as secondary drainage releases. All interceptor ditches shall be privately maintained.

B. Storm Drainage Requirements

The project is proposing to install an off-site storm drain main through City property to coincide with an off-site Emergency Vehicle Access. The private storm drain shall be located in an all weather access road and the Developer shall comply with any necessary requirements for the installation of this main as noted in Section 3.E above.

Per the City's Facilities Planning Guidelines (dated June 2005), the flows must have the following characteristics:

For a 10-year design discharge: a hydraulic grade line (HGL) is no higher than 1.25 feet below the top of curb elevation at any manhole or inlet.

For a 100-year design discharge: a HGL does not exceed the top of curb elevation.

For additional detail on these guidelines, the applicant should refer to the following resources: City of Livermore Storm Drain Master Plan & City of Livermore Facilities Planning Guidelines (both available at the Engineering counter at City Hall).

C. Stormwater Infrastructure Maintenance Funding

The cost to maintain all private storm water infrastructure installed with this project shall be funded by the Developer.

D. Channels – Not Used

E. Storm Water Treatment, Detention and Low Impact Development Requirements

1. *The Developer shall treat the storm water runoff from this site prior to having the storm water enter the City's storm water distribution system. Stormwater Treatment, Low Impact Development, and Trash Capture is required by the Regional Water Quality Control Board. The Developer shall complete and or update the Stormwater Requirements Checklist. The Developer shall provide a storm water treatment plan with calculations indicating treatment that meets the latest requirements described in Section C.3 of the City's NPDES Permit with the Regional Water Quality Control Board. City approval of this plan and calculations is required prior to the approval of the improvement plans.*

2. *If this project is greater than one acre, the Developer shall provide a Hydrograph Modification Plan (HMP) with calculations in accordance with the Alameda Countywide Cleanwater Program (ACCWP) Bay Area Hydrology Model (BAHM) guidelines. The software for the design of control measures to meet the Flow Duration Control is available to download from* www.bayareamodel.org. *For additional information you may contact Debbie Salgado in the City's Engineering Department at (925-960-4558)*

3. *Prior to final map approval, the applicant shall enter into a maintenance agreement with the City of Livermore for all storm water treatment devices deemed necessary on this site. If the stormwater treatment devices will be maintained by the individual homeowners a cleanout will be necessary at the property lines to allow the residents to maintain their portion of the private stormdrain underdrain. If the stormwater treatment device will be maintained by a Homeowners Association then the cleanouts at each of the property lines may not be needed. The stormdrain treatment devices shall be shown on the plat plans and included in the Operations and Maintenance Agreement. The Operations and Maintenance Agreement(s) shall be recorded prior to recordation of the Final Map.*

F. Stormwater Treatment Infrastructure Maintenance Funding

The cost to maintain all storm water treatment, detention and low impact development infrastructure installed with this project shall be funded by the Developer.

9. REQUIRED SOURCE CONTROL STORMWATER MEASURES

The Regional Water Quality Control Board adopted Order R2-2022-0018 issuing the Alameda Countywide NPDES municipal storm water permit for the Alameda Countywide Clean Water Program. The 17 member agencies, including Livermore, are subject to this permit and all its requirements including the following:

> *"The Permittees shall, as part of their continuous improvement process, submit enhanced new development and significant redevelopment Performance Standards that summarize source control requirements for such projects to limit pollutant generation, discharge, and runoff, to the maximum extent practicable..."*

In accordance with this requirement, the following source control measures, included as part of these Conditions of Approval, shall be implemented as a part of this project.

A. Structural Control Measures

1. Illegal Dumping to Storm Drain Inlets and Waterways

On-site storm drain inlets, except inlets located in landscaped areas, shall be clearly marked with the words "No Dumping! Flows to Bay" on a plastic marker. The plastic markers are available for purchase from the Water Resources Division. For ordering information, please call 925-960-8100. For projects with newly-developed, privately-maintained streets, agency staff will verify that storm drain inlets have been marked before the final sign-off on the project's building permit or encroachment permit.

2. Interior Floor Drains

Approved interior floor drains shall be plumbed to the sanitary sewer system and shall not be connected to the storm drain system. The applicant shall contact the Water Resources Division for specific connection and discharge requirements.

3. Parking Garages – Not Used

4. Pesticide/Fertilizer Application and Irrigation

   a. Landscaping shall be designed to minimize irrigation and runoff, promote surface infiltration where possible, minimize the use of fertilizers and pesticides that can contribute to storm water pollution, and incorporate appropriate Bay-Friendly Landscaping principles.

   b. If a landscaping plan is required as part of a development project application, the plan shall meet the following conditions related to reduction of pesticide use on the project site:

      I. Where feasible, landscaping shall be designed and operated to treat storm water runoff by incorporating elements that collect, detain, and infiltrate runoff. In areas that provide detention of water, plants that are tolerant of saturated soil conditions and prolonged exposure to water shall be specified.

      II. Plant materials selected shall be appropriate to site specific characteristics such as soil type, topography, climate, amount and timing of sunlight, prevailing winds, rainfall, air movement, patterns of land use, ecological consistency and plant interactions to ensure successful establishment.

      III. Existing native trees, shrubs, and ground cover shall be retained and incorporated into the landscape plan to the maximum extent practicable.

      IV. Unless otherwise specified, proper maintenance of landscaping shall be the responsibility of the property owner.

      V. Integrated pest management (IPM) principles and techniques shall be encouraged as part of the landscaping design. Some examples of IPM principles and techniques include the following:

         i. Select plants that are well adapted to soil conditions at the site.

         ii. Select plants that are well adapted to sun and shade conditions at the site. Consider future conditions when plants reach maturity. Consider seasonal changes and time of day.

         iii. Provide irrigation appropriate to the water requirements of the selected plants.

         iv. Select pest and disease resistant plants.

         v. Plant a diversity of species to prevent a potential pest infestation from affecting the entire landscaping plan.

vi. Use "insectary" plants in the landscaping to attract and keep beneficial insects.

VI. Landscaping shall also comply with City of Livermore's "Water Efficient Landscape Ordinance". However, areas of a site used for bio-swales or other landscaped areas that function as a storm water treatment measure shall be exempt from the Water Efficient Landscaping requirements.

VII. An efficient irrigation system shall be installed in areas requiring irrigation. An example of an efficient irrigation system is one that includes a weather-based (automatic, self-adjusting) irrigation controller with a moisture and/or rain sensor shutoff, and in which sprinkler and spray heads are not permitted in areas less than 8 feet wide.

5. Pool, Spa, and Fountain Discharges – Not Used

6. Food Service Equipment Cleaning – Not Used

7. Refuse Areas

   a. New or redevelopment projects shall provide a roofed and enclosed area for dumpsters, recycling containers, compactors, and food waste containers. The area shall be designed to prevent water run-on to the area, to prevent runoff from the refuse area and to properly contain litter and trash. Dumpster leakage from covered trash and food compactor enclosures shall drain to the sanitary sewer via connection to an approved oil and grease interceptor device if required.

   b. Runoff from trash enclosures, recycling areas, and/or food compactor enclosures or similar facilities shall not discharge to the storm drain system. Trash enclosure areas shall be designed to avoid run-on to the trash enclosure area. In most cases, drains are not permitted within trash enclosure areas. A drain, however, must be provided for compactors. If a drain is required in or beneath dumpsters, compactors, and tallow bin areas, it shall be connected to a grease removal device prior to discharging to the sanitary sewer.

8. Outdoor Process Activities/Equipment[1] – Not Used

   a. Process activities shall be performed either indoors or in roofed outdoor areas. If performed outdoors, the area shall be designed to prevent the "run-on" of storm water drainage, as well, as the runoff from the area with process activities.

   b. Process equipment areas shall drain to the sanitary sewer system. The applicant shall contact the Water Resources Division for specific connection and discharge requirements.

9. Outdoor Equipment/Materials Storage – Not Used

10. Vehicle/Equipment and Commercial/Industrial Cleaning

11. Vehicle/Equipment Repair and Maintenance – Not Used

12. Fuel Dispensing Areas – Not Used

13. Loading Docks

a. Loading docks shall be graded to minimize run-on to and runoff from the loading area. Storm water runoff from loading dock areas shall be directed or connected to a post-construction storm water treatment measure(s) prior to discharge to the storm drain system.

b. Door skirts between the trailers and the building shall be installed to prevent exposure of loading activities to rain, unless one of the following conditions applies: the loading dock is covered, or the applicant demonstrates that rainfall will not result in an exposure of storm water to pollutants.

14. Fire Sprinkler Test Water

Provisions shall be made in the project design and construction to allow for the discharge of fire sprinkler test water to an onsite vegetated area. If this is not feasible, provide for discharge to the sanitary sewer in accordance with current plumbing codes.

15. Miscellaneous Drain or Wash Water

a. Boiler drain lines shall be connected to the sanitary sewer system and may not discharge to the storm drain system.

b. For small air conditioning units, air conditioning condensate shall be directed to landscaped areas as a minimum BMP. For large air conditioning units, in new developments or significant redevelopments, condensation lines shall be connected to the sanitary sewer system, wherever feasible.

c. Roof drains shall discharge and drain away from the building foundation to landscaped areas wherever feasible.

d. Washing and/or steam cleaning activities must be performed at an appropriately equipped facility that drains to the sanitary sewer as specified in Section J. Any outdoor washing or pressure washing must be in compliance with the City's Stormwater Management Program requirements and managed in such a way that there is no discharge of soaps or other pollutants to the storm drain system. The applicant shall contact the Water Resources Division for specific discharge requirements.

16. Architectural Copper Installation – Not Used

B. II. OPERATIONAL BMPS

This section details Best Management Practices (BMP) that private property owners and/or the occupants of private property must implement following the construction of projects. Ultimately, the responsibility for implementation of these BMPs rests with the property owners. The City of Livermore's Source Control Program routinely performs inspections of industrial and commercial sites to verify BMP implementation and effectiveness.

1. Paved Sidewalks and Parking Lots

Sidewalks and parking lots shall be swept regularly to minimize the accumulation of litter and debris. Wash water resulting from the pressure washing of parking lots must be captured, pretreated (if necessary) to meet local discharge limits, and discharged to the sanitary sewer. Wash water resulting from the pressure washing of sidewalks may be allowed to drain to the storm drain system provided that (a) no soap or other cleaning agents are used, and (b) all debris are trapped and collected to prevent entry into the storm drain system. Under no circumstances shall washwater containing any soap or other cleaning agents be discharged to the storm drain system.

2. Private Streets, Utilities and Common Areas

   a. The owner of private streets and storm drains shall prepare and implement a plan for street sweeping of paved private roads and cleaning of all storm drain inlets.

3. Vehicle/Equipment Repair and Maintenance – Not Used

4. Fueling Areas – Not Used

5. Loading Docks

The property owner shall ensure that BMPs are implemented to prevent potential storm water pollution. These BMPs shall include, but are not limited to, a regular program of sweeping, litter control, and spill clean-up.

6. On-site Storm Drains

All on-site storm drains must be inspected and, if necessary, cleaned at least once a year immediately prior to the rainy season.

7. Architectural Copper Cleaning, Treating or Washing – Not Used

10. WATER SUPPLY (CITY)

Water mains shall be extended across all frontages of each phase and all waterline valves must notate "EPDM" on the valve body.

The developer shall install pressure reduction valves (PRVs), backflow prevention devices and appurtenances on the potable and reclaimed water services as directed by the City Engineer.

The fire service backflow preventer(s) shall be effectively screened from the public right-of-way while at the same time preserving ease of maintenance access to the backflow preventer(s). Screening shall be as specified on City Standard Detail W-10A, B and C. The fire service backflow preventer(s) shall meet the performance standards of the backflow preventer shown in City Standard Detail W-10A, B and C.

Prior to removal of a 1-inch, a 1.5-inch, or a 2-inch water service, the Developer shall contact the City's Water Resources Division at (925) 960-8100, and ask if the City would like to convert the service to a water sampling station. Existing water services (of any size) that will not be used by the proposed development shall be abandoned at the main. Large services shall be abandoned by placing a blind flange on the tee at the main. Small services shall be abandoned by removing the corporation stop valve and installing the appropriate plug in the service saddle. Any valves or meters on abandoned services shall be removed. The meters shall be returned to the Water Resources Division if they are not reused. The Developer shall coordinate water service removals with the City's Water Resources Division as well as with the public works inspector.

Because the project is located within the reclaimed water service area, the irrigation system shall be connected to the reclaimed water system. If the Reclaimed water main is not currently located along the sight frontage of this project, the Developer shall extend the water main as necessary to connect to the main along said project site frontage.

Submit an application for a permit to use recycled water to the Water Resources Division of Public Works.

11. UNDERGROUNDING OF UTILITIES:

All existing and new electric (with the exception of any 60 KV and higher voltage wires) and communication lines along the project frontage and within the project shall be placed underground. Electric, gas, Comcast and SBC utilities are required and shall be placed in a common trench. All electric transformers shall be placed underground. (Commercial and industrial developments may have above ground transformers).

12. TRAILWAY/BIKEWAY REQUIREMENTS

Active Transportation Plan

Certain portions of this development are within the City of Livermore Active Transportation Plan established and adopted as part of the General Plan. The Developer will be required to dedicate and develop that certain land within and adjacent to this development for various trail and bikeway transportation purposes.

13. MEDIANS AND OTHER LANDSCAPED AREAS

Since the City has a new centralized irrigation system with a computer terminal and modem located at the City's Maintenance Service Center, the Developer shall install a City standard centralized irrigation controller system with communication accessories as approved by the City. The City may exempt this requirement based on the limited size of the landscape area.

14. HORTICULTURIST'S REPORT – Not Used

15. SPECIAL DISTRICTS

A. Landscaping and Lighting Maintenance and Operation – Not Used

B. Assessment District

The development shall annex into Community Facilities District No. 2021-1 (Citywide Maintenance) to provide for maintenance funds for public infrastructure installed with this project. The public infrastructure to be included in the CFD shall include but is not limited to:

1. Public trail along Jack London Boulevard

The Developer shall initiate and bear the costs for the annexation into CFD 2021-1.

Annexation documents shall be filed with the filing of the final map. The necessary documentation shall be submitted for City review with the first improvement plan submittal.

16. AIRPORT LOCATION

This development is located in the vicinity of the Livermore Municipal Airport. Aircraft operations in the vicinity of the property may potentially create nuisances, including but not limited to noise, vibration or odors. The owner and or future buyer should be aware that operations and flight numbers at the Livermore Municipal Airport could increase in the future. A report must be filed with the Division of Real Estate relative to this matter.

An avigation easement shall be granted to the City. The grant shall be made on the City's "Avigation Easement" form.

17. SUBDIVISION AGREEMENT AND SECURITY

Following tentative map approval, the Subdivision Improvement Agreement will not be submitted to the City Council until the Developer has submitted all of the documents indicated in the "Final Approval of Tract Map Checklist" in the Development Plan Check and Procedures Manual (28) days prior to the city council meeting at which the final map will be considered for final approval by the City Council.

18. FEE AMOUNTS

The Developer will be required to pay the applicable development impact fees and project processing fees due in connection with this subdivision. The fee shall be the amount in effect at the time the fee is required to be paid.

19. VEHICLE ACCESS

Prior to or with the submittal for the first plan check of the tract improvement plans and final map, the Developer shall submit for review and approval a traffic control plan for providing safe entry to and exit from the site. The purpose of the plan is to insure that there will be safe entry and exit by construction and other vehicles prior to the installation of the required permanent improvements on Jack London Boulevard.

Access to the development by construction equipment, material delivery and other heavy loads shall be limited by the Developer to the following route:

Isabel Avenue, Jack London Boulevard

Such heavy loads will not be allowed on existing residential streets in the vicinity of the development.

The wheel-loading on the above routes shall not exceed State load limits.

JW:DES

EC SMP 39 3-5-24 des

DATE: March 1, 2024
Revised: March 5, 2024 PC

ENGINEERING CONSIDERATIONS - EXHIBIT "A"
(Subject to revision prior to final approval
by Planning Commission and City Council)

TENTATIVE PARCEL MAP: 11219 (SUB21-008),
APZ21-003, DA21-001

LOCATION: SMP 40 – End of Atlantis Ct and Challenger St

APPLICANT: Overton Moore Properties

Note: Special conditions are shown in standard type. Standard conditions that apply to this project are shown in italics. In addition, standard conditions of approval for this project are listed in Section II of the Development Plan Check and Procedures Manual.

1. DEFINITIONS

For the purpose of this agreement, the following words shall have the meanings respectively ascribed to them by this section:

Developer :	*Person(s) or Corporation(s) signing final map(s) and subdivision agreement(s)*
Improvement Plans:	*Construction drawings for required public and private improvements*
Services:	*Utility lateral, or any portions of a conduit cable or duct, between a utility distribution line and the site it serves*
Project:	*The work to be performed by Developer*

2. VESTING TENTATIVE MAP

Approval or conditional approval of this vesting tentative map shall not limit the City Engineer's ability to require workable designs on future grading and improvement plans based upon these Engineering Considerations and the City's standard engineering specifications and details.

In addition to these Engineering Considerations the Developer shall comply with all requirements set forth in Development Agreement 21-001.

The project is proposing to modify the floodway of the Arroyo Mocho to minimize flooding potential of the project and has applied to FEMA for a LOMR to effectuate the change in the floodway. Prior

to the filing of the final parcel map the Developer shall obtain the final LOMR from FEMA for this change.

The final parcel map shall show the flood plain and the revised floodway with base flood elevation noted from the current Flood Insurance Rate Maps and Flood Insurance Study.

The Parcel Map shall show the creek set-back area as defined by Alameda County Zone 7 Water Agency.

The parcel map shall include easement dedications to the public for a multi-use trail and an Emergency Vehicle Access. The parcel map shall also include private easement dedications for shared access and utilities.

3. GENERAL

The project shall be in conformance with all City Ordinances, rules, regulations, and policies. The conditions listed below are particularly pertinent to this permit and shall not be construed to permit violation of other laws and policies not so listed.

All required improvements shall be constructed prior to occupancy of the new buildings on this site and in accordance with DA21-001.

A. IMPROVEMENT PLANS - Exhibit A-1

An engineered improvement plan shall be prepared by the Developer for approval by the City's Departments (including the Community Development, Public Works, Fire, and Police Department), which shall include, but not necessarily be limited to, existing site conditions, dedications, grading plans, street design and grades, curb, gutter, sidewalk and driveway grades, and type, size and location of all public works improvements as herein required. Approval of this tentative map does not constitute approval of the details shown thereon. If there is any conflict between the tentative map and these Engineering Considerations, the Engineering Considerations shall govern.

No specific phased development plan has been submitted with this tentative tract application. Therefore, all required improvements for this tentative map shall be constructed as one phase. A phased map could only be considered if a specific phasing plan is submitted for consideration as a tentative map amendment.

B. STANDARDS FOR IMPROVEMENT PLANS AND MAPS

All improvement plans and maps shall conform to the following City of Livermore documents except as modified by these engineering considerations:

1. *City of Livermore Standard Specifications and Details*
2. *Development Plan Check and Procedures Manual*

Completed final map and improvement plan checklists from the manual entitled "City of Livermore, Development Plan Check and Procedures Manual" shall be submitted with the first plan check

submittal for each phase.

C. STANDARD CONDITIONS OF APPROVAL IN THE DEVELOPMENT PLAN CHECK AND PROCEDURES MANUAL

All of the standard conditions of approval for subdivisions and major projects as listed in Part II of the City of Livermore Development Plan Check and Procedures Manual apply except for the following: A-2, A-9, A-13, A-14, A-15, A-16, A-17, B-5, B-16, K-1, K-2, K-3, N-1, U-1, U-2, U-3.

D. WORK IN OTHER JURISDICTIONS

The Developer is responsible for obtaining permits and approvals for construction work and property acquisition that are required by agencies other than the City of Livermore.

Creek improvements may be subject to requirements of any or all of the following agencies: (1) California Department of Fish and Game, (2) the Army Corps of Engineers, (3) the Regional Water Quality Control Board, (4) State Department of Water Resources (5) the U.S. Fish and Wildlife Service, and (6) Alameda County Flood Control and Water Conservation District (Zone 7).

Isabel Avenue is Caltrans right-of-way and requires a permit from Caltrans.

E. SPECIFIC CONDITIONS

The Developer shall file a Parcel Map as described in Section 2 of these Engineering Consideration and comply with the following conditions:

A. The finished floor elevation of the new buildings shall be set at an elevation one foot above the FEMA base flood elevation in compliance with City floodplain requirements for pad and compaction certifications. The certifications are required before building construction can begin and after the final grading is complete.

B. Because the buildings are proposed to be constructed adjacent to the floodplain, elevation certificates are required per City floodplain requirements to document the building elevations and provide the information needed to accurately rate any future flood insurance policy in the event the floodplain changes in the future. Provide a FEMA elevation certificate before and after construction to certify both the elevations of the proposed structures and as-built structures. The elevation certificate for the proposed structure shall be submitted prior to the issuance of a building permit and the elevation certificate certifying the as-built structure shall be submitted and approved prior to occupancy.

C. Construct the multi-use Arroyo Mocho Trail from its existing southern terminus on the adjacent property to the north through the site. The remaining trail shall then be constructed off-site through the following properties: Alameda County Flood Control and Water Conservation District (APN 904-0010-002-05) utilizing the existing bridge crossing the Arroyo Mocho and City of Livermore (APN 904-0019-002-08). The trail will then cross

Isabel Avenue with a pedestrian bridge in Caltrans right-of-way connecting to the western terminus of the Arroyo Mocho Trail recently constructed by the City. Plans for the trail may be separated into an on-site set and an off-site set for ease of review and construction. In accordance with DA 22-001, the Developer shall contribute $750,000 towards construction of the pedestrian bridge.

D. The Developer shall conduct a scour analysis of the Arroyo Mocho, or any other analysis as determined by the City Engineer, to ensure stability and minimize long term erosion of the multi-use trail. The results of the analysis shall be incorporated into the final design of the trail.

E. Install trail signs per current City standards and specifications.

4. STREETS

A. SPECIFIC REQUIREMENTS:

The Developer shall offer easements and dedications for, and shall improve his share of the ultimate street widths for the following named streets in accordance with the City's General Plan:

Atlantis Court and Challenger Street

Atlantis Court and Challenger Street are local streets in the General Plan. Both streets are fully improved except at the cul-de-sac ends just north of the project. In order to provide access to the site for both buildings through fully completed streets, the Developer shall construct the remaining portions of the cul-de-sacs. Improvements to be constructed include but are not limited to sidewalk, curb and gutter.

Atlantis Court and Challenger Street shall be given a Type II Microseal overlay across the full width where new utilities are installed.

CASp Certification for Public Walkways/Sidewalks

The Developer shall have a certified CASp Specialist review and certify that the design for all pedestrian improvements within the public right-of-way or a public easement complies with the following applicable regulations: American with Disabilities Act (ADA) requirements, the Public Rights-of-Way Accessibility Guidelines (PROWAG), and the requirements found in Chapter 11B of the 2019 California Building Code. If an accessibility design cannot meet the above listed applicable standards, the Developer shall propose and the CASp Specialist shall concur with a design exception request for approval by the City Engineer or their designee. In addition, the Developer shall have the certified CASp Specialist inspect and certify that pedestrian improvements are installed per the CASp certified design. Pedestrian improvements include new trails, walkways, sidewalks, accessible ramps, connections between existing and new pedestrian

improvements, and modifications to existing pedestrian improvements within or adjacent to the project site, as shown on the approved plans.

5. TRAFFIC SIGNALS- Not Used

6. TRAFFIC IMPACT FEE CREDITS AND REIMBURSEMENTS:

A. CREDITS

The Developer will be eligible for credit against their traffic impact fee for the following construction on Isabel Avenue:

Pedestrian Bridge crossing over Isabel Avenue and the off-site portion of the trail from the north end of the Zone 7 bridge to the connection with the Arroyo Mocho Trail

Traffic impact fee credits will be calculated at the time the subdivision agreement is prepared prior to final parcel map approval. The traffic impact fee credit for construction will be based on cost estimates for the TIF work as approved by the City Engineer. The traffic impact fee for the development will also be calculated based on the traffic impact fee per unit of development at that time to determine how TIF credits will be applied to the building permits

7. SANITARY SEWERS

The project shall connect to the public sewer main in Atlantis Court terminating at a manhole at or near the property line. Because the extended sewer will be shared by both project parcels, a private sewer easement shall be dedicated on the parcel map to serve both properties.

8. STORM WATER DRAINAGE AND TREATMENT REQUIREMENTS

A. General

1. This site is subject to the National Pollutant Discharge Elimination System (NPDES) Program. Prior to the issuance of the initial grading or building permit, the Developer shall provide evidence that the site is covered by the statewide General Permit to Discharge Storm Water associated with construction activity. This requires confirmation that a Notice of Intent (NOI) and the applicable fee was sent to the State Water Resources Control Board. In addition, the grading plans need to state: "All grading shall be in accordance with the Storm Water Pollution Prevention Plan prepared by the Developer per the Notice of Intent on file with the State Water Resources Control Board".

2. Necessary interceptor ditches shall be concrete. Field inlets and storm drainage pipe may be necessary in conjunction with concrete interceptor ditches as secondary drainage releases. All interceptor ditches shall be privately maintained.

B. Storm Drainage Requirements

Per the City's Facilities Planning Guidelines (dated June 2005), the flows must have the following characteristics:

For a 10-year design discharge: a hydraulic grade line (HGL) is no higher than 1.25 feet below the top of curb elevation at any manhole or inlet.

For a 100-year design discharge: a HGL does not exceed the top of curb elevation. (This is required for item 3 above.)

For additional detail on these guidelines, the applicant should refer to the following resources: City of Livermore Storm Drain Master Plan & City of Livermore Facilities Planning Guidelines (both available at the Engineering counter at City Hall).

C. Stormwater Infrastructure Maintenance Funding

The cost to maintain all private storm water infrastructure installed with this project shall be funded by the Developer.

D. Channels – Not Used

E. Storm Water Treatment, Detention and Low Impact Development Requirements

1. *The Developer shall treat the storm water runoff from this site prior to having the storm water enter the City's storm water distribution system. Stormwater Treatment, Low Impact Development, and Trash Capture is required by the Regional Water Quality Control Board. The Developer shall complete and or update the Stormwater Requirements Checklist. The Developer shall provide a storm water treatment plan with calculations indicating treatment that meets the latest requirements described in Section C.3 of the City's NPDES Permit with the Regional Water Quality Control Board. City approval of this plan and calculations is required prior to the approval of the improvement plans.*

2. *If this project is greater than one acre, the Developer shall provide a Hydrograph Modification Plan (HMP) with calculations in accordance with the Alameda Countywide Cleanwater Program (ACCWP) Bay Area Hydrology Model (BAHM) guidelines. The software for the design of control measures to meet the Flow Duration Control is available to download from* www.bayareamodel.org. *For additional information you may contact Debbie Salgado in the City's Engineering Department at (925-960-4558)*

3. *Prior to final map approval, the applicant shall enter into a maintenance agreement with the City of Livermore for all storm water treatment devices deemed necessary on this site. If the stormwater treatment devices will be maintained by the individual homeowners a cleanout will be necessary at the property lines to allow the residents to maintain their portion of the private stormdrain underdrain. If the stormwater treatment device will be maintained by a Homeowners Association then the cleanouts at each of the property lines may not be needed. The stormdrain treatment devices shall be shown on the plat plans and included in the Operations and Maintenance Agreement. The Operations and Maintenance Agreement(s) shall be recorded prior to recordation of the Final Map.*

F. Stormwater Treatment Infrastructure Maintenance Funding

The cost to maintain all storm water treatment, detention and low impact development infrastructure installed with this project shall be funded by the Developer.

9. REQUIRED SOURCE CONTROL STORMWATER MEASURES

The Regional Water Quality Control Board adopted Order R2-2022-0018 issuing the Alameda Countywide NPDES municipal storm water permit for the Alameda Countywide Clean Water Program. The 17 member agencies, including Livermore, are subject to this permit and all its requirements including the following:

> *"The Permittees shall, as part of their continuous improvement process, submit enhanced new development and significant redevelopment Performance Standards that summarize source control requirements for such projects to limit pollutant generation, discharge, and runoff, to the maximum extent practicable..."*

In accordance with this requirement, the following source control measures, included as part of these Conditions of Approval, shall be implemented as a part of this project.

A. Structural Control Measures

1. Illegal Dumping to Storm Drain Inlets and Waterways

On-site storm drain inlets, except inlets located in landscaped areas, shall be clearly marked with the words "No Dumping! Flows to Bay" on a plastic marker. The plastic markers are available for purchase from the Water Resources Division. For ordering information, please call 925-960-8100. For projects with newly-developed, privately-maintained streets, agency staff will verify that storm drain inlets have been marked before the final sign-off on the project's building permit or encroachment permit.

2. Interior Floor Drains

Approved interior floor drains shall be plumbed to the sanitary sewer system and shall not be connected to the storm drain system. The applicant shall contact the Water Resources Division for specific connection and discharge requirements.

3. Parking Garages – Not Used

4. Pesticide/Fertilizer Application and Irrigation

   a. Landscaping shall be designed to minimize irrigation and runoff, promote surface infiltration where possible, minimize the use of fertilizers and pesticides that can

contribute to storm water pollution, and incorporate appropriate Bay-Friendly Landscaping principles.

b. If a landscaping plan is required as part of a development project application, the plan shall meet the following conditions related to reduction of pesticide use on the project site:

I. Where feasible, landscaping shall be designed and operated to treat storm water runoff by incorporating elements that collect, detain, and infiltrate runoff. In areas that provide detention of water, plants that are tolerant of saturated soil conditions and prolonged exposure to water shall be specified.

II. Plant materials selected shall be appropriate to site specific characteristics such as soil type, topography, climate, amount and timing of sunlight, prevailing winds, rainfall, air movement, patterns of land use, ecological consistency and plant interactions to ensure successful establishment.

III. Existing native trees, shrubs, and ground cover shall be retained and incorporated into the landscape plan to the maximum extent practicable.

IV. Unless otherwise specified, proper maintenance of landscaping shall be the responsibility of the property owner.

V. Integrated pest management (IPM) principles and techniques shall be encouraged as part of the landscaping design. Some examples of IPM principles and techniques include the following:

i. Select plants that are well adapted to soil conditions at the site.

ii. Select plants that are well adapted to sun and shade conditions at the site. Consider future conditions when plants reach maturity. Consider seasonal changes and time of day.

iii. Provide irrigation appropriate to the water requirements of the selected plants.

iv. Select pest and disease resistant plants.

v. Plant a diversity of species to prevent a potential pest infestation from affecting the entire landscaping plan.

vi. Use "insectary" plants in the landscaping to attract and keep beneficial insects.

VI. Landscaping shall also comply with City of Livermore's "Water Efficient Landscape Ordinance". However, areas of a site used for bio-swales or other landscaped areas that function as a storm water treatment measure shall be exempt from the Water Efficient Landscaping requirements.

VII. An efficient irrigation system shall be installed in areas requiring irrigation. An example of an efficient irrigation system is one that includes a weather-based (automatic, self-adjusting) irrigation controller with a moisture and/or rain sensor shutoff, and in which sprinkler and spray heads are not permitted in areas less than 8 feet wide.

5. Pool, Spa, and Fountain Discharges – Not Used

6. Food Service Equipment Cleaning – Not Used

7. Refuse Areas

   a. New or redevelopment projects shall provide a roofed and enclosed area for dumpsters, recycling containers, compactors, and food waste containers. The area shall be designed to prevent water run-on to the area, to prevent runoff from the refuse area and to properly contain litter and trash. Dumpster leakage from covered trash and food compactor enclosures shall drain to the sanitary sewer via connection to an approved oil and grease interceptor device if required.

   b. Runoff from trash enclosures, recycling areas, and/or food compactor enclosures or similar facilities shall not discharge to the storm drain system. Trash enclosure areas shall be designed to avoid run-on to the trash enclosure area. In most cases, drains are not permitted within trash enclosure areas. A drain, however, must be provided for compactors. If a drain is required in or beneath dumpsters, compactors, and tallow bin areas, it shall be connected to a grease removal device prior to discharging to the sanitary sewer.

8. Outdoor Process Activities/Equipment[1] – Not Used

   a. Process activities shall be performed either indoors or in roofed outdoor areas. If performed outdoors, the area shall be designed to prevent the "run-on" of storm water drainage, as well, as the runoff from the area with process activities.

   b. Process equipment areas shall drain to the sanitary sewer system. The applicant shall contact the Water Resources Division for specific connection and discharge requirements.

9. Outdoor Equipment/Materials Storage – Not Used

10. Vehicle/Equipment and Commercial/Industrial Cleaning

11. Vehicle/Equipment Repair and Maintenance – Not Used

12. Fuel Dispensing Areas – Not Used

13. Loading Docks

a. Loading docks shall be graded to minimize run-on to and runoff from the loading area. Storm water runoff from loading dock areas shall be directed or connected to a post-construction storm water treatment measure(s) prior to discharge to the storm drain system.

b. Door skirts between the trailers and the building shall be installed to prevent exposure of loading activities to rain, unless one of the following conditions applies: the loading dock is covered, or the applicant demonstrates that rainfall will not result in an exposure of storm water to pollutants.

14. Fire Sprinkler Test Water

Provisions shall be made in the project design and construction to allow for the discharge of fire sprinkler test water to an onsite vegetated area. If this is not feasible, provide for discharge to the sanitary sewer in accordance with current plumbing codes.

15. Miscellaneous Drain or Wash Water

a. Boiler drain lines shall be connected to the sanitary sewer system and may not discharge to the storm drain system.

b. For small air conditioning units, air conditioning condensate shall be directed to landscaped areas as a minimum BMP. For large air conditioning units, in new developments or significant redevelopments, condensation lines shall be connected to the sanitary sewer system, wherever feasible.

c. Roof drains shall discharge and drain away from the building foundation to landscaped areas wherever feasible.

d. Washing and/or steam cleaning activities must be performed at an appropriately equipped facility that drains to the sanitary sewer as specified in Section J. Any outdoor washing or pressure washing must be in compliance with the City's Stormwater Management Program requirements and managed in such a way that there is no discharge of soaps or other pollutants to the storm drain system. The applicant shall contact the Water Resources Division for specific discharge requirements.

16. Architectural Copper Installation – Not Used

B. II. OPERATIONAL BMPS

This section details Best Management Practices (BMP) that private property owners and/or the occupants of private property must implement following the construction of projects. Ultimately, the responsibility for implementation of these BMPs rests with the property owners. The City of

Livermore's Source Control Program routinely performs inspections of industrial and commercial sites to verify BMP implementation and effectiveness.

1. Paved Sidewalks and Parking Lots

Sidewalks and parking lots shall be swept regularly to minimize the accumulation of litter and debris. Wash water resulting from the pressure washing of parking lots must be captured, pretreated (if necessary) to meet local discharge limits, and discharged to the sanitary sewer. Wash water resulting from the pressure washing of sidewalks may be allowed to drain to the storm drain system provided that (a) no soap or other cleaning agents are used, and (b) all debris are trapped and collected to prevent entry into the storm drain system. Under no circumstances shall washwater containing any soap or other cleaning agents be discharged to the storm drain system.

2. Private Streets, Utilities and Common Areas

   a. The owner of private streets and storm drains shall prepare and implement a plan for street sweeping of paved private roads and cleaning of all storm drain inlets.

3. Vehicle/Equipment Repair and Maintenance – Not Used

4. Fueling Areas – Not Used

5. Loading Docks

The property owner shall ensure that BMPs are implemented to prevent potential storm water pollution. These BMPs shall include, but are not limited to, a regular program of sweeping, litter control, and spill clean-up.

6. On-site Storm Drains

All on-site storm drains must be inspected and, if necessary, cleaned at least once a year immediately prior to the rainy season.

7. Architectural Copper Cleaning, Treating or Washing – Not Used

10. WATER SUPPLY (CITY)

Water mains shall be extended across all frontages of each phase and all waterline valves must notate "EPDM" on the valve body.

The developer shall install pressure reduction valves (PRVs), backflow prevention devices and appurtenances on the potable and reclaimed water services as directed by the City Engineer

The fire service backflow preventer(s) shall be effectively screened from the public right-of-way while at the same time preserving ease of maintenance access to the backflow preventer(s).

Screening shall be as specified on City Standard Detail W-10A, B and C. The fire service backflow preventer(s) shall meet the performance standards of the backflow preventer shown in City Standard Detail W-10A, B and C.

Prior to removal of a 1-inch, a 1.5-inch, or a 2-inch water service, the Developer shall contact the City's Water Resources Division at (925) 960-8100, and ask if the City would like to convert the service to a water sampling station. Existing water services (of any size) that will not be used by the proposed development shall be abandoned at the main. Large services shall be abandoned by placing a blind flange on the tee at the main. Small services shall be abandoned by removing the corporation stop valve and installing the appropriate plug in the service saddle. Any valves or meters on abandoned services shall be removed. The meters shall be returned to the Water Resources Division if they are not reused. The Developer shall coordinate water service removals with the City's Water Resources Division as well as with the public works inspector.

Because the project is located within the reclaimed water service area, the irrigation system shall be connected to the reclaimed water system. If the Reclaimed water main is not currently located along the sight frontage of this project, the Developer shall extend the water main as necessary to connect to the main along said project site frontage.

Submit an application for a permit to use recycled water to the Water Resources Division of Public Works.

11. UNDERGROUNDING OF UTILITIES:

All existing and new electric (with the exception of any 60 KV and higher voltage wires) and communication lines along the project frontage and within the project shall be placed underground. Electric, gas, Comcast and SBC utilities are required and shall be placed in a common trench. All electric transformers shall be placed underground. (Commercial and industrial developments may have above ground transformers).

12. TRAILWAY/BIKEWAY REQUIREMENTS

Active Transportation Plan

Certain portions of this development are within the City of Livermore Active Transportation Plan established and adopted as part of the General Plan. The Developer will be required to dedicate and develop that certain land within and adjacent to this development for the construction of the Arroyo Mocho Trail.

The alignment of the Arroyo Mocho Trail shall follow the alignment as described in Section E.C. above and shall be comprised of various sections as follows:

On-site:

Within a 20' minimum trail easement the trail shall be constructed with a minimum 10'AC and 5'gravel sections with 3'shoulders on both sides.

Paved ramps shall be provide from each building connecting their respective parking lots at the access gates to the on-site trail. March 5, 2024 PC

Off-site:

The trail portion within the Arroyo Mocho Access Road will narrow to fit within the existing 15' road section and will be comprised on a 10' AC section with 2.5' gravel shoulders on both sides.

The remaining portion of the off-site trail will be constructed with a minimum 10'AC and 2'shoulders on both sides.

The Developer shall prepare exhibits for the portion on the trail located on the Alameda County Flood Control and Water Conservation District property for inclusion in the City's Recreational Use License Agreement with the agency.

13. MEDIANS AND OTHER LANDSCAPED AREAS

Since the City has a new centralized irrigation system with a computer terminal and modem located at the City's Maintenance Service Center, the Developer shall install a City standard centralized irrigation controller system with communication accessories as approved by the City. The City may exempt this requirement based on the limited size of the landscape area.

14. HORTICULTURIST'S REPORT – Not Used

15. SPECIAL DISTRICTS

A. Landscaping and Lighting Maintenance and Operation – Not Used

B. Assessment District

The development shall annex into Community Facilities District No. 2021-1 (Citywide Maintenance) to provide for maintenance and replacement funds for public infrastructure installed with this project. The public infrastructure to be included in the CFD shall include but is not limited to:

1. On-site public trail and associated landscaping and retaining walls
2. Off-site public trail on Zone 7 property and associated landscaping and retaining walls

The Developer shall initiate and bear the costs for the annexation into CFD 2021-1.

Annexation documents shall be filed with the filing of the final map. The necessary documentation shall be submitted for City review with the first improvement plan submittal.

16. AIRPORT LOCATION

This development is located in the vicinity of the Livermore Municipal Airport. Aircraft operations

in the vicinity of the property may potentially create nuisances, including but not limited to noise, vibration or odors. The owner and or future buyer should be aware that operations and flight numbers at the Livermore Municipal Airport could increase in the future. A report must be filed with the Division of Real Estate relative to this matter.

An avigation easement shall be granted to the City. The grant shall be made on the City's "Avigation Easement" form.

17. SUBDIVISION AGREEMENT AND SECURITY

Following tentative map approval, the Subdivision Improvement Agreement will not be submitted to the City Council until the Developer has submitted all of the documents indicated in the "Final Approval of Tract Map Checklist" in the Development Plan Check and Procedures Manual (28) days prior to the city council meeting at which the final map will be considered for final approval by the City Council.

18. FEE AMOUNTS

The Developer will be required to pay the applicable development impact fees and project processing fees due in connection with this subdivision. The fee shall be the amount in effect at the time the fee is required to be paid.

19. VEHICLE ACCESS

Prior to or with the submittal for the first plan check of the tract improvement plans and final map, the Developer shall submit for review and approval a traffic control plan for providing safe entry to and exit from the site. The purpose of the plan is to insure that there will be safe entry and exit by construction and other vehicles prior to the installation of the required permanent improvements on Atlantis Court.

Access to the development by construction equipment, material delivery and other heavy loads shall be limited by the Developer to the following route:
St

Isabel Avenue, Discovery Drive, Atlantis Ct or Challenger St

Such heavy loads will not be allowed on existing residential streets in the vicinity of the development.

The wheel-loading on the above routes shall not exceed State load limits.

JW:DES

EC SMP 40 3-5-24 des

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

AN ORDINANCE ADOPTING ANNEXATION/PREZONING (APZ) 21-003, PLANNED DEVELOPMENT – INDUSTRIAL (PD-I) 22-001, DEVELOPMENT CODE AMENDMENT (DCA) 21-005, AND ZONING MAP AMENDMENT (ZMA) 21-002 OF THE CITY OF LIVERMORE FOR THE SMP 39/SMP 40 PROJECT

THE CITY COUNCIL OF THE CITY OF LIVERMORE DOES ORDAIN AS FOLLOWS:

Section 1. *Recommendation*. The Planning Commission held a duly noticed public hearing on March 5, 2024, to consider Planned Development – Industrial 22-001 and recommended that the City Council approve the Planned Development in Planning Commission Resolution No.03-24, attached hereto as Exhibit A.

Section 2. *Environmental*. The City Council considered the environmental review and certified the SMP 39/SMP 40 Final Environmental Impact Report by Resolution No. ____.

Section 3. *Consistency.* The ordinance is consistent with the Livermore General Plan, any applicable specific plan, and the Livermore Development Code.

Section 4. *Adoption.* The City Council of the City of Livermore has considered the findings made in Planning Commission Resolution No.03-24, attached hereto as Exhibit A, and hereby adopts the same findings by this reference and incorporates them as part of this resolution, and based upon the City Council's own independent review and considerations, the City Council hereby approves Annexation/Prezoning (APZ) 21-003 to pre-zone the Subject Property to Planned Development – Industrial 22-001 and Open Space-Floodplain, Planned Development - Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, and Zoning Map Amendment (ZMA) 21-002, amending the Zoning Map of the City of Livermore as shown in the attached Exhibit B.

Section 5. *Zoning Standards*. The zoning standards for this district shall be those set forth in the Planned Development - Industrial (PD-I) 22-001 Standards, attached hereto as Exhibit C.

Section 6. *Publication and Effective Date.* This ordinance or a comprehensive summary thereof shall be published once in a newspaper of general circulation of the City of Livermore within 15 days after its adoption and shall take effect and be in force thirty days from and after its adoption.

Section 7. *Filing.* The Planning Manager is directed to file a Notice of Determination with the Alameda County Clerk.

Section 8. *Documents.* The documents that constitute the record of proceedings upon which this decision is based on can be found in the City Clerk's Office, 1052 S. Livermore Avenue, Livermore, California.

Section 9. *Severability.* If any part of this ordinance is declared unconstitutional or invalid by a court, such unconstitutionality or invalidity shall not affect any remaining parts.

The foregoing ordinance was introduced at the meeting of the City Council of the City of Livermore held on March 25, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

The ordinance was adopted at the regular meeting of the City Council held on _____, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

_____
Mayor, City of Livermore

ATTEST:

_____
Deborah L. Elam
Acting City Clerk

APPROVED AS TO FORM:

/s/ Kimberly D. Cilley
Kimberly D. Cilley
Senior Assistant City Attorney

Exhibit A – Planning Commission Resolution No. 03-24
Exhibit B – Zoning Map Amendment (ZMA) 21-002
Exhibit C – Planned Development – Industrial 22-001 Zoning Standards

IN THE PLANNING COMMISSION OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION RECOMMENDING THAT THE CITY COUNCIL APPROVE GENERAL PLAN AMENDMENT (GPA) 21-001, ANNEXATION/PREZONING (APZ) 21-003, ZONING MAP AMENDMENT (ZMA) 21-002, PLANNED DEVELOPMENT-INDUSTRIAL (PD-I) 22-001, DEVELOPMENT CODE AMENDMENT (DCA) 21-005, VESTING TENTATIVE PARCEL MAP (SUB) 21-008, VESTING TENTATIVE TRACT MAP (SUB) 21-009, SITE PLAN DESIGN REVIEW (SPDR) 21-008, PRE-ANNEXATION AND DEVELOPMENT AGREEMENT (DA) 21-001, AND PRE-ANNEXATION AND DEVELOPMENT AGREEMENT (DA) 23-002 FOR THE SMP 39/SMP 40 PROJECT

The City received an application General Plan Amendment (GPA) 21-001, Annexation/Prezoning (APZ) 21-003, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, Site Plan Design Review (SPDR) 21-008, Pre-annexation and Development Agreement (DA) 21-001, and Pre-annexation and Development Agreement (DA) 23-002 for the SMP 39/SMP 40 Project ("Project") to develop approximately 1.51 million square feet of industrial development and associated parking, lighting, landscaping, and other improvements.

On March 5, 2024, the Planning commission held a duly noticed public hearing to consider the Project and staff recommendations, all public comments and testimony, and findings.

NOW, THEREFORE, BE IT RESOLVED, by the Planning Commission of the City of Livermore that prior to taking action on the Project, and at a properly noticed public meeting, the Planning Commission reviewed written and oral staff reports, conducted a public hearing on the Project and took testimony, and received into the record all pertinent documents related to the Project (collectively, the "Record Evidence"). The Planning Commission's determination is based on the Record Evidence, which is incorporated into this Resolution by reference.

BE IT FURTHER RESOLVED with respect to General Plan Amendment (GPA) 21-003 (attached hereto as Exhibit A) the Planning Commission of the City of Livermore finds based on the information presented:

1. The amendment is internally consistent with all other provisions of the General Plan.

   Response: The General Plan currently designates the SMP 39, SMP 40, and the Additional Annexation Only Parcels as Open Space/Sand and Gravel (OSP/S&G) and is adjacent to land designated by the General Plan as Low-Intensity Industrial (LII). The Project proposes to modify the General Plan designation for SMP 39 and SMP 40 to LII to permit light industrial development and the Additional Annexation Only Parcels to Parks, Trailways, and Recreation Areas (OSP). Development is not proposed on the Additional Annexation Only Parcels and the OSP designation is

consistent with the parcels' natural features and attributes, including their proximity to Arroyo Mocho. The change to a LII land use designation for the site supports and implements the General Plan and will be compatible with the existing and adjacent industrial uses in the Oaks Business Park and Livermore Municipal Airport, maximizing the use of existing public streets, services, and facilities. Therefore, the proposed changes are internally consistent with all other provisions of the General Plan.

2. The proposed amendment will not be detrimental to the public interest, health, safety, convenience, or welfare of the City.

   Response: The proposed General Plan Amendment will enable SMP 39 and SMP 40 to be developed with light industrial uses and achieve the General Plan Goals, Objectives, and Policies to focus light industrial uses around the Livermore Municipal Airport. In addition, the development will not include objectionable levels of noise, vibration, odors, glare, or hazard that would create a nuisance for surrounding uses. Planned Development – Industrial (PD-I) 22-001 zoning will implement the General Plan land use designation through use restrictions and development standards to ensure orderly and thoughtful development of the site with respect to the site's location and physical characteristics. Development is not proposed on the Additional Annexation Only Parcels. The Additional Annexation Only Parcels will be designated as OSP designation and rezoned to Open Space – Floodplain which is consistent with the parcels' natural features and attributes, including their proximity to Arroyo Mocho.

   In addition, the Project, including the necessary General Plan and Zoning amendments, was analyzed in conformance with the California Environmental Quality Act (CEQA) and found to have no adverse effect on the environment with mitigation incorporated, with the exception of converting agricultural land to non-agricultural uses as defined by the Alameda County Local Agency Formation Commission. However, the California Department of Conservation's Farmland Mapping and Monitoring Program does not classify the project site as Farmland. Therefore, the proposed amendment would not be detrimental to the public interest, health, safety, convenience, or welfare of the City.

3. The affected site is physically suitable in terms of design, location, shape, size, operating characteristics, and the provision of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment, and disposal, etc.), to ensure that the proposed or anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

   Response: Based on the plans and specifications provided by the Developer and reviewed by City staff, the SMP 39 and SMP 40 sites are physically suitable to

accommodate the industrial land use designation at the proposed intensity. In addition, the Project, including the necessary General Plan and Zoning Map Amendments, was analyzed in conformance with the California Environmental Quality Act (CEQA), which found the site was suitable in terms of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment and disposal, etc.). The proposed land use designation and the anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

BE IT FURTHER RESOLVED with respect to Annexation/Prezoning (APZ 21-003), Development Code Amendment (DCA) 21-005, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001 (attached hereto as Exhibits B and C) the Planning Commission of the City of Livermore finds based on the information presented:

1. The proposed amendment is consistent with the General Plan and any applicable Specific Plan.

   Response: The SMP 39 and SMP 40 properties will be prezoned to PD-I 22-001, which is consistent with the proposed General Plan land use designation of LII. The zone will be similar to the adjacent existing industrial uses and developed in compliance the PD-I 22-001 and Livermore Development Code standards. In addition, the Additional Annexation Only Parcels will be prezoned to OS-F zone, which is consistent with the proposed General Plan land use designation of OSP.

2. The proposed amendment will not be detrimental to the public interest, health, safety, convenience, or welfare of the City.

   Response: Based on staff analysis contained in the Planning Commission staff report and the SMP 39/SMP 40 EIR, there is no evidence that approval of the Zoning Map Amendment will be detrimental to the public interest, health, safety, convenience, or welfare of the City.

3. The proposed amendment is internally consistent with other applicable provisions of this Development Code.

   Response: The proposed Zoning Map Amendment would prezone SMP 39 and SMP 40 to PD-I 22-001 and prezone the Additional Annexation Only Parcels to OS-F. Prezoning is required prior to annexation of territory into the City. Therefore, the proposed amendment is consistent with all other applicable provisions of the Development Code.

4. The affected site is physically suitable in terms of design, location, shape, size, operating characteristics, and the provision of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm

drainage, wastewater collection, treatment, and disposal, etc.), to ensure that the requested zone designation and the proposed or anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

Response: Based on the plans and specifications provided by the Developer and reviewed by City staff, the SMP 39 and SMP 40 sites are physically suitable to accommodate the industrial land use designation at the proposed intensity. In addition, the Project, including the necessary General Plan and Zoning Map Amendments, was analyzed in conformance with the California Environmental Quality Act (CEQA), which found the site was suitable in terms of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment and disposal, etc.). The proposed land use designation and the anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

BE IT FURTHER RESOLVED with respect to the Vesting Tentative Parcel Map (SUB) 21-008 and Vesting Tentative Tract Map (SUB) 21-009 the Planning Commission of the City of Livermore finds based on the information presented:

1. The proposed map is consistent with the General Plan and any applicable specific plan, any policy or guideline implementing the General Plan (including the City's Design Standards and Guidelines), or other applicable provisions of this Development Code.

   Response: The Vesting Tentative Parcel Map and Vesting Tentative Tract Map were submitted with applications for a General Plan Amendment and Zoning Map Amendments (Annexation/Prezoning). Based on the approvals to change the General Plan land use designation to an industrial use and the proposed PD-I 22-001 zone, the proposed maps are consistent with the General Plan and the Development Code.

2. The site is physically suitable for the proposed type of development.

   Response: The development of approximately 1.51 million square feet of industrial development is consistent with the Low Intensity General Plan land uses, PD-I 22-001 zoning, and the Livermore Development Code, which confirms the proposed intensity and type of development are suitable for the site.

3. The design of the subdivision or the proposed improvements will not cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat. Notwithstanding the foregoing, the Commission or Council may approve a tentative map if an Environmental Impact Report was prepared with respect to the project and a statement of overriding considerations was made to the effect that specific economic, social, or other considerations make infeasible the

mitigation measures or project alternatives identified in the Environmental Impact Report.

Response: The project involves the development of two undeveloped sites with industrial uses. An Environmental Impact Report (EIR) was prepared for the project. The EIR finds that with mitigation measures (protocol surveys, state and federal agency coordination, and avoidance strategies for special status species), any potential impacts to fish or wildlife or their habitat will be reduced to less than significant.

4. The design of the subdivision or the type of improvements will not cause serious public health problems.

   Response: An EIR has been prepared for the project. The EIR finds that with mitigation measures, any potential impacts to public health will be reduced to less than significant.

5. The design of the subdivision or the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision (The Commission or Council may approve a tentative map if it finds that alternative easements for access will be provided, and that these will be substantially equivalent to ones previously acquired by the public. This Subparagraph shall apply only to easements of record or to easements established by judgment of a court of competent jurisdiction, and no authority is hereby granted to the Commission to determine that the public at large has acquired easements for access through or use of property within the proposed subdivision.)

   Response: There are no existing easements on SMP 39 or SMP 40. The Project includes an at-grade, paved trail within a 38.5-foot trail easement along the SMP 39 frontage on West Jack London Boulevard, consistent with the City's Active Transportation Plan. There is an access easement and public use easements on a portion of the Additional Annexation Only Parcels. However, this area will not be developed as part of the Project, with the exception of an at-grade trail along a portion of the Additional Annexation Only Parcels. The design of the subdivisions and the proposed development improvements avoids these easements and thus does not conflict with any public easements.

6. Any proposed phases and their proposed sequence of construction are identified on the submitted tentative map. The City may impose reasonable conditions relating to the filing of multiple final maps in conjunction with the approval of the tentative map (Section 66456.1).

   Response: The subdivision does not involve multiple phases.

BE IT FURTHER RESOLVED with respect to the Site Plan Design Review (SPDR) 21-008 the Planning Commission of the City of Livermore finds based on the information presented:

1. The proposed development will be allowed within the subject zone.

   Response: Based on the approval of the General Plan Amendment application to change the site to industrial use, in concert with prezoning the site to Planned Development – Industrial 22-001 zoning district, which permits light industrial uses and establishes appropriate development standards, the proposed development of industrial buildings is permitted within the subject zone.

2. Be designed such that:
   a. The project will not be detrimental to the public health, safety, or general welfare, and not detrimental to adjacent property;
   b. Architectural design and functional plan of the structure(s) and related improvements are of reasonable aesthetic quality and compatible with adjacent developments;
   c. Structure(s) and related improvements are suitable for the proposed use of the property and provide adequate consideration of the existing and contemplated uses of land and orderly development in the general area of the subject site; and
   d. The project's site plan and design is consistent with the City's Design Standards and Guidelines.

   Response: An Environmental Impact Report (EIR) was prepared for the project. The EIR does not find any significant impacts on the public health, safety, or general welfare to adjacent properties. Based on the review of the development plans for the Project, the design of the proposed development is compatible with adjacent developments and consistent with the Design Standards and Guidelines. No aspect of the proposed development will be detrimental to the existing uses of land and the orderly development in the general area.

3. Be designed to include the following criteria, as applicable:
   a. Compliant with this Chapter, this Development Code, Municipal Code Title 15 (Buildings and Construction), and all other applicable City regulations and policies;
   b. Efficient site layout and design;
   c. Compatible and appropriate scale to neighboring properties and developments;
   d. Efficient and safe public access (both pedestrian and vehicular) and parking;
   e. Appropriate and harmonious arrangement and relationship of proposed structures and signs to one another and to other development in the vicinity, based on good standards of design;
   f. Appropriate relationship to land use and development of adjacent properties, including topographic and other physical characteristics of the land;

g. Proper site utilization and the establishment of a physical and architectural relationship to existing and proposed structures on the site;
h. Compatible architectural style with the character of the surrounding area, both to avoid repetition of identical design where not desired, and to ensure compatibility in design where desired;
i. Harmonious relationship with existing and proposed developments and the avoidance of both excessive variety and monotonous repetition;
j. Compatible in color, material, and composition of the exterior elevations to neighboring visible structures;
k. Appropriate exterior lighting which provides for public safety and is not of a nature that will constitute a hazard or nuisance to adjacent properties;
l. Compatible in scale and aesthetic treatment of proposed structures with public areas;
m. Appropriate open space and use of water efficient landscaping; and
n. Consistent with the General Plan and any applicable Specific Plan.

Response: The Project is designed to be compatible and in scale with the existing surrounding developments. The Project is designed to provide adequate on-site improvements including parking, lighting and landscaping. Based on the design review of the project, as documented in the Planning Commission staff report, the Project meets all the design criteria identified above.

BE IT FURTHER RESOLVED with respect to the Pre-annexation and Development Agreement (DA) 21-001 and Pre-annexation and Development Agreement (DA) 23-002 (attached hereto as Exhibits D and E, respectively) the Planning Commission of the City of Livermore finds based on the information presented:

1. The Development Agreement provides benefit to the City.

   Response: The Development Agreements establish terms and obligations for public benefits, including the Applicant's financial contribution toward and construction of the off-site trail improvements and financial contribution to the City's Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001. For these reasons, the Development Agreements will provide benefit to the City.

2. The Development Agreement is consistent with the purpose, intent, goals, policies, programs, and land use designations of the General Plan, any applicable Specific Plan, and this Development Code.

   Response: The Development Agreements require the Applicant to provide a financial contribution to the City's Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001. This is consistent with the purpose, intent, goals, policies, and programs, of the General Plan. Specifically, this will implement policies and actions in the General Plan Economic Development element to encourage existing businesses to remain and grow in

Livermore, and attract a range of new businesses to locate in Livermore. The Development Agreements also include financial contribution toward and construction of the off-site trail improvements identified in the City's Active Transportation Plan. This is consistent with the purpose, intent, goals, policies, and programs of the General Plan and the Active Transportation Plan to improve bicycle and pedestrian circulation and connectivity.

3. The Development Agreement complies with the requirements of Government Code Sections 65864 through 65869.5

   Response: The proposed development complies with the requirements of Government Code Section 65864 through 65869.5 by securing the terms and timing for off-site improvements and amenities for the benefit of the broader Livermore community.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore has considered the Record Evidence and adopted a resolution recommending the City Council certify an Environmental Impact Report.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore has considered the findings set forth above and adopts these findings as part of this resolution. Based upon the Planning Commission's independent review of the Record Evidence and considerations, the Planning Commission recommends that the City Council approve General Plan Amendment (GPA) 21-001, Annexation/Prezoning (APZ) 21-003, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008, subject to the Conditions of Approval attached hereto as Exhibit F, for the SMP 39/SMP 40 Project.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore has considered the findings set forth above and adopts these findings as part of this resolution. Based upon the Planning Commission's independent review of the Record Evidence and considerations, the Planning Commission recommends that the City Council approve Pre-annexation and Development Agreement (DA) 21-001, and Pre-annexation and Development Agreement (DA) 23-002 in substantial conformance with Exhibits D and E, subject to the Conditions of Approval attached hereto as Exhibit F, for the SMP 39/SMP 40 Project.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore recommends the City Council authorize submission of an application to the Alameda County Local Agency Formation Commission to initiate a sphere of influence modification and annexation proceedings for the Subject Property.

BE IT FURTHER RESOLVED, the Planning Commission of the City of Livermore recommends that the City Council direct the Planning Manager to file a Notice of Determination with the Alameda County Clerk, if the project is approved.

The documents that constitute the record of proceedings upon which this decision is based can be found in the Community Development Department, 1052 S. Livermore Avenue, in Livermore, California.
On the motion by Commissioner Leary, seconded by Commissioner Fintschenko, the foregoing Resolution was passed and adopted at the Planning Commission meeting of March 5, 2024, by the following vote:

AYES: ANDERSON, DUNBAR, FINTSCHENKO, KRONZAK, LEARY.
NOES: NONE.
ABSENT: NONE.

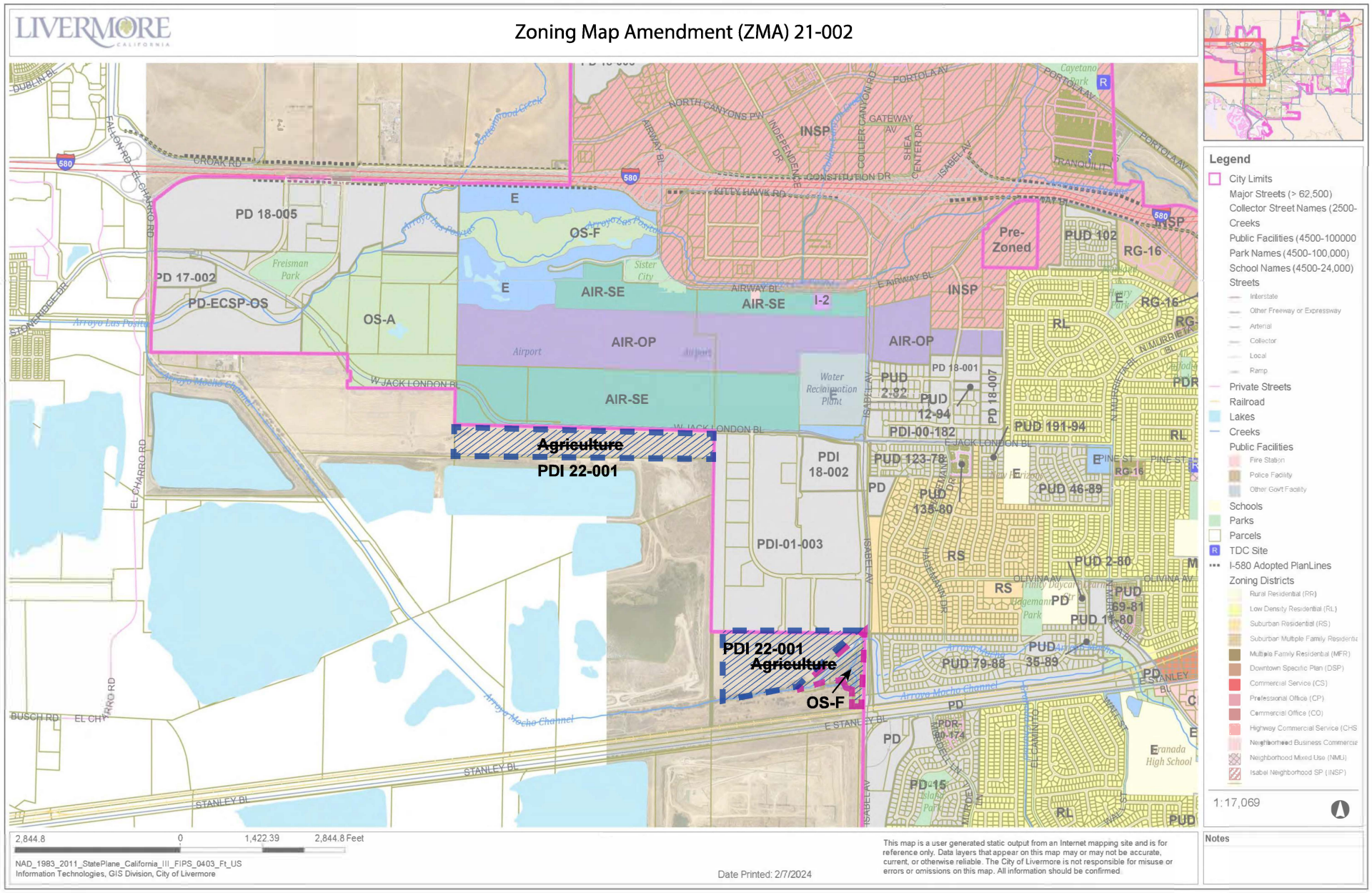
Jacob Anderson, Chairperson

Steve Riley

by Steve Riley, Acting Planning Manager
Secretary to the Planning Commission

Exhibit A – General Plan Amendment (GPA) 21-001
Exhibit B – Zoning Map Amendment (ZMA) 21-002
Exhibit C – Draft Planned Development-Industrial 22-001 Zoning
Exhibit D – Draft Development Agreement (DA) 23-002
Exhibit E – Draft Development Agreement (DA) 21-001
Exhibit F – Conditions of Approval

EXHIBIT B



LIVERMORE CALIFORNIA
Zoning Map Amendment (ZMA) 21-002
Agriculture
PDI 22-001
PDI 22-001
Agriculture
OS-F
PD 18-005
PD 17-002
PD-ECSP-OS
OS-A
E
OS-F
AIR-SE
AIR-OP
AIR-SE
I-2
INSP
Pre-Zoned
PUD 102
RG-16
RL
PD 18-001
PD 18-007
PUD 2-82
PUD 12-94
PDI-00-182
PUD 191-94
PUD 123-78
PUD 135-80
PUD 46-89
PDI 18-002
PDI-01-003
RS
PUD 2-80
PUD 69-81
PUD 11-80
PUD 35-89
PUD 79-88
PD-15
Freisman Park
Sister City
Airport
Water Reclamation Plant
Hagemann Park
Granada High School
Arroyo Las Positas
Arroyo Mocho Channel
W JACK LONDON BL
E JACK LONDON BL
E STANLEY BL
STANLEY BL
EL CHARRO RD
ISABEL AV
OLIVINA AV
PORTOLA AV
CONSTITUTION DR
KITTY HAWK RD
NORTH CANYONS PW
GATEWAY AV
CROAK RD
DUBLIN BL
BUSCH RD
580
Legend
City Limits
Major Streets (> 62,500)
Collector Street Names (2500-
Creeks
Public Facilities (4500-100000
Park Names (4500-100,000)
School Names (4500-24,000)
Streets
Interstate
Other Freeway or Expressway
Arterial
Collector
Local
Ramp
Private Streets
Railroad
Lakes
Creeks
Public Facilities
Fire Station
Police Facility
Other Gov't Facility
Schools
Parks
Parcels
TDC Site
I-580 Adopted PlanLines
Zoning Districts
Rural Residential (RR)
Low Density Residential (RL)
Suburban Residential (RS)
Suburban Multiple Family Residentia
Multiple Family Residential (MFR)
Downtown Specific Plan (DSP)
Commercial Service (CS)
Professional Office (CP)
Commercial Office (CO)
Highway Commercial Service (CHS
Neighborhood Business Commercia
Neighborhood Mixed Use (NMU)
Isabel Neighborhood SP (INSP)
1:17,069
2,844.8 0 1,422.39 2,844.8 Feet
NAD_1983_2011_StatePlane_California_III_FIPS_0403_Ft_US
Information Technologies, GIS Division, City of Livermore
Date Printed: 2/7/2024
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. The City of Livermore is not responsible for misuse or errors or omissions on this map. All information should be confirmed.
Notes

PLANNED DEVELOPMENT
STANDARDS
SMP 39 & SMP 40

Planned Development – Industrial (PD-I) 22-001

Reviewed by Planning Commission: March 5, 2024
Approved by City Council: March 25, 2024

Purpose: The purpose of establishing this Planned Development-Industrial (PD-I 22-001) District (District) is to regulate the development of ± 51.9 acres of land located on Jack London Boulevard, west of Oaks Business Park and south of Livermore Municipal Airport (commonly referred to as "SMP 39") and ± 41 acres of land located south of Oaks Business Park, at the south end of Atlantis Street and Challenger Street (commonly referred to as "SMP 40"), as shown in the attached figure (Figure 1). The intent of this District is to accomplish the following:

1. PD-I 22-001 is intended to provide an environment exclusively for and conducive to the development and protection of modern professional and administrative facilities, research institutions, manufacturing operations, experimental and testing laboratory and related uses, any similar employment generating high-end industrial users, all of a non-nuisance type.
2. The District is intended to provide for an aesthetically attractive working environment with park- and/or campus-like grounds, attractive buildings, employee parking, and other amenities appropriate to a mix of office and industrial uses.
3. The District is intended to establish development standards and regulations consistent with the intent of the Low Intensity Industrial General Plan designation.
4. Any land use that utilizes hazardous materials shall be subject to the regulations of Section 6.02.040, Hazardous Materials, of the Livermore Development Code, as it exists now or is amended in the future.
5. Development shall be in conformance with the requirements of the Livermore Development Code as it exists now or is amended in the future, except as modified by the following regulations.
6. Development is subject to the Citywide Design Standards and Guidelines as they exist now or may be amended in the future unless otherwise modified by the following regulations.

A. Principal Permitted Uses:

The following are the principal permitted uses for SMP 39[1] and SMP 40:

1. Research and development facilities
2. Professional and administrative offices
3. Experimental and testing laboratories
4. Manufacture of electric and electronic circuits, instruments, and devices
5. Manufacture of pharmaceutical products or life science facility, not exceeding Biosafety Level 2[2]
6. Medical diagnostic and manufacturing facilities
7. Manufacturing and assembly of motor vehicle parts, including but not limited to dashboards, parts, component systems, electrical connectors, sensors, panels, airbags, seats, tires, windows etc. for all vehicles and similar equipment (e.g. automobiles, motorcycle, construction equipment, farm equipment, buses).
8. Similar uses as determined by the Community Development Director to be of the same general character as the listed uses.

Additional Permitted Uses for SMP 39 only:

1. Restaurants, except fast food

Additional Permitted Uses for SMP 40 only:

1. Warehousing and distribution facilities, dry or refrigerated
2. Warehousing and distribution facility – E-commerce/Third Party Logistics (3PL)
3. Manufacturing, assembly, processing, storage, or packaging of products from previously prepared materials such as, but not limited to, cloth, plastic, paper, leather, and precious or semi-precious metals or stones, <u>but not including the following</u>:
   A. Operations such as saw and planing mills, any manufacturing uses involving primary production of wood, metal, or chemical products from raw materials, and similar uses
   B. Vehicle dismantling yards, scrap and waste yards
   C. Manufacturing, processing, storing, or packaging chemicals, petroleum, heavy agricultural products or other hazardous materials.

[1] SMP 39 and SMP 40 are located with the Airport Influence Area and the Livermore Airport Protection Area. Per the Alameda County Airport Land Use Compatibility Plan, the majority of SMP 39 is located in Safety Zone 6, with a portion of the site located in Safey Zone 3. The principal permitted land uses are intended to be located in buildings that are only within the portion of SMP 39 that is located in Safety Zone 6.

[2] Per the Centers for Disease Control and Prevention, Biosafety Level 2 laboratories involve work that poses moderate hazards to laboratory workers and the environment. Biosafety Level 2 laboratories require safety protocols to contain microbes and biological agents.

4. Sale of heavy equipment and construction related vehicles and equipment, including associated repair, service, and parts distribution facilities. Showrooms related to this use may be a conditionally permitted ancillary use.
5. Similar uses as determined by the Community Development Director to be of the same general character as the listed uses.

B. Conditional Uses for SMP 39 and 40:

1. Public and quasi-public uses.
2. Manufacture of pharmaceutical products or life science facility, not exceeding Biosafety Level 3[3]
3. Similar uses as determined by the Planning Commission to be of the same general character as the listed uses.

Conditional Uses for SMP 39 only:

1. Fast-food businesses, banks, personal services, or goods required for the convenience and support of occupants of uses in the surrounding district(s).
2. Warehouse and distribution facilities, including E-commerce/Third Party Logistics (3PL) uses, with the condition that these uses may only occupy up to 20 percent of the total buildable site area.
3. Sale of heavy equipment and construction related vehicles and equipment, including associated repair, service, and parts distribution facilities, provided they are manufactured and/or sold on-site. Showrooms related to this use may be a conditionally permitted ancillary use.
4. Similar uses as determined by the Planning Commission to be of the same general character as the listed uses.

C. Accessory Uses Permitted on SMP 39 and 40:

1. Signs subject to the requirements established by the Livermore Development Code, as well as the Citywide Design Standards and Guidelines, as it exists now or is amended in the future.
2. Accessory uses and buildings customarily appurtenant to a permitted use.
3. Living quarters determined by the Community Development Director to be necessary for surveillance purposes.
4. Fuel stations subject to the requirements of Section 6.03.160, Vehicle Services, of the Livermore Development Code, as it exists now or is amended in the future.

[3] Per the Centers for Disease Control and Prevention, laboratories designated Biosafety Level 3 involve work that poses a safety hazard greater than Biosafety Level 2 laboratories, defined above. Biosafety Level 3 laboratories require additional safety protocols beyond those required for Biosafety Level 2 laboratories to contain microbes and biological agents.

D. Special Development Requirements for SMP 39 and 40:

1. Uses shall be designed and integrated into the site in a manner that maintains and is complementary to the corporate and professional character of the nearby Oaks Business Park.
2. Outdoor service and storage yards shall be screened from public view consistent with Livermore Development Code Section 6.03.100, Outdoor Storage, as it exists today or is amended in the future.
3. For SMP 40 only: Commercial/Industrial buildings shall be located a distance of at least 500 feet from Isabel Avenue.

E. Site Development Regulations for SMP 39 and 40:

The following minimum requirements shall be observed, except where increased for conditional uses:

1. Lot Area: Twenty thousand square feet
2. Lot Width: One hundred feet
3. Setbacks: Setback requirements are established below. Buildings shall not be permitted within required setbacks.

A. SMP 39

1) Front or Street Side: 40-feet on West Jack London Boulevard, and 30-feet on frontage roads and interior streets, except as required by subsection E.4. All required setbacks adjacent to streets shall be landscaped, except for driveways, sidewalks, and trails that are found to be necessary for the efficient use of the property. Where a building front is visible from the street, a minimum five-foot wide landscaped strip abutting the foundation shall be included, allowing for necessary entrances.
2) Rear and Side: None.

B. SMP 40

1) Front or Street Side: 500-feet from Isabel Avenue, and 30-feet on frontage roads and interior streets, except as required by subsection E.4. All required setbacks adjacent to streets shall be landscaped, except for driveways and sidewalks that are found to be necessary for the efficient use of the property. Where a building front is visible from the street, a minimum five-foot wide landscaped strip abutting the foundation shall be included, allowing for necessary entrances
2) Rear and Side: None, except for a 20-foot setback from the top of the Arroyo Mocho bank on SMP 40 which should be determined from a 2.5:1 slope projection from the toe of

channel/mining pit to the top, as required in the Environmental Impact Report for the project.

4. Height Regulations: The height of all on-site structures, including roof-top mechanical equipment, is limited to 50 feet or the height permitted by the Federal Aviation Administration (FAA) review under FAA regulations – Part 77, whichever is more restrictive. Upon providing a minimum 40-foot setback from street rights-of-way, a Conditional Use Permit may be requested to increase height to a maximum of 55 feet, or the height permitted under FAA regulations – Part 77, whichever is more restrictive. The height of pole-and building-mounted lights may be approved up to 28 feet by an administrative site plan and design review, if found necessary for the health and safety of a site designed for truck or other large vehicle maneuvering and documented by a light study to not cause glare off-site.
5. Lot Coverage: The building coverage maximum shall be 45 percent.

F. Signs

1. Industrial Uses. Signs for industrial uses shall be subject to the sign regulations contained in Livermore Development Code section 4.06.230 (sign standards for I-1, I-2 and I-3) and the Citywide Design Standards Guidelines as it exists now or is amended in the future.
2. Commercial Uses. Signs for commercial uses shall be subject to the sign regulations contained in Livermore Development Code section 4.06.170 (sign standards for CNB) and the Citywide Design Standards Guidelines as it exists now or is amended in the future.

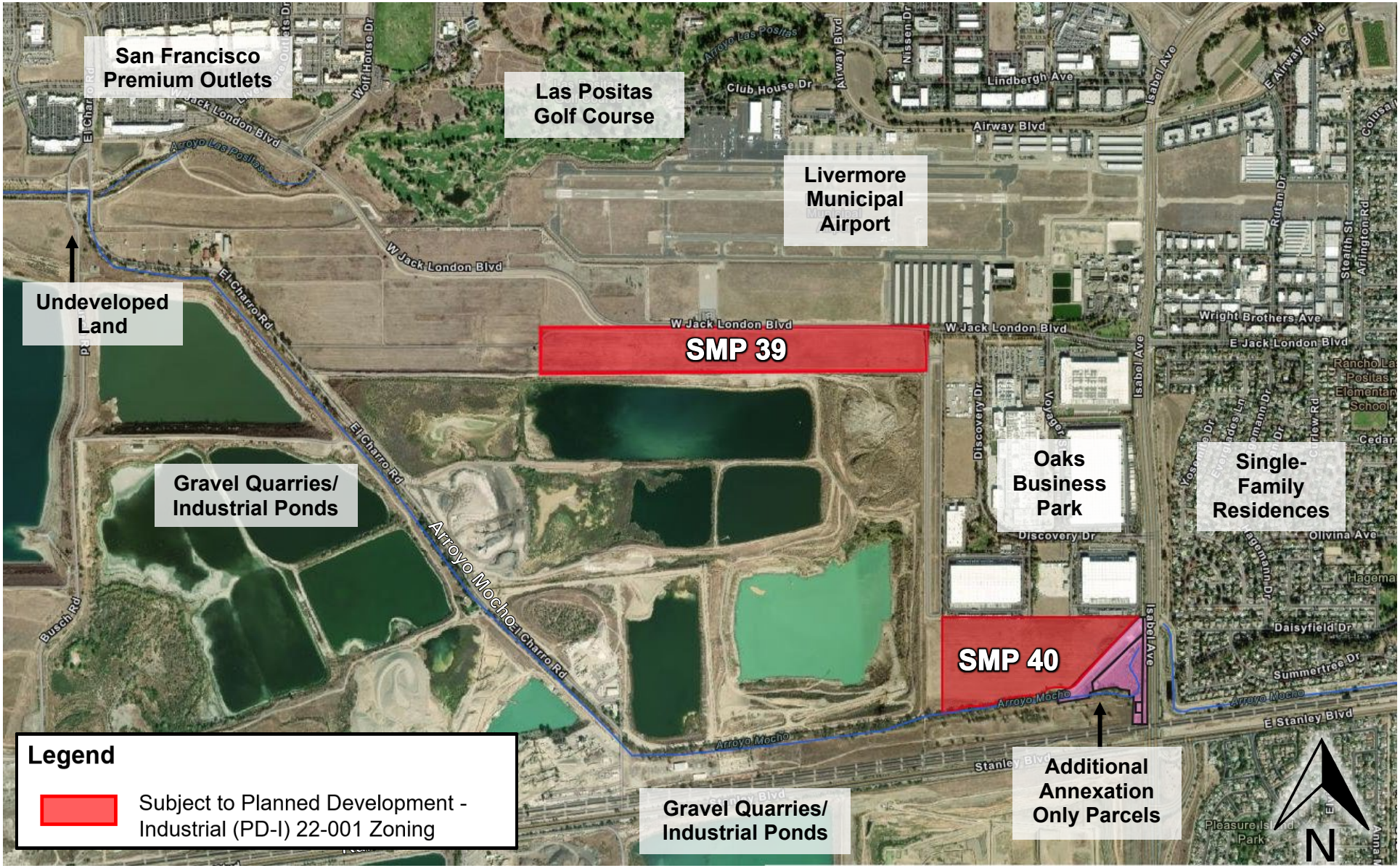
G. Other Required Standards for SMP 39 and 40:

1. Noise. No use shall be permitted which creates an ambient noise level greater than 75 decibels (dBA) beyond the boundaries of the site, nor greater than 60 decibels at the boundary of a Residential District.
   A. On SMP 39, semi-truck access to the site (arrivals and departures) shall be limited to 96 trips between the hours of 10:00 PM and 7:00 AM.
   B. On SMP 40, semi-truck access to the site (arrivals and departures) shall be limited to 40 trips between the hours of 10:00 PM and 7:00 AM
   C. Between the hours of 10:00 PM and 7:00 AM single-event noise levels (e.g., backup alarm, truck brakes, etc.) shall not exceed 55 dBA, measured at the property line of the nearest residential use.
2. Air Pollution. All uses shall comply with regulations of the San Francisco Bay Area Air Pollution Control District.
3. Vibration, Heat, Glare, Electrical Disturbance. No use shall be permitted which creates noise, odors, vibrations, heat, glare, or electrical disturbances beyond the

boundaries of the site. Lighting used to illuminate buildings, structures, uses, or parking and loading areas shall not be directed toward any public right-of-way.

4. Fire, Explosion. All uses shall provide adequate safety devices and adequate firefighting and fire suppression equipment to protect against fire, explosion, and other hazards.
5. Solid and Liquid Wastes. No solid or liquid waste discharges, other than permitted discharges into a public sewage disposal system, shall be permitted. The chemical composition and volume of industrial effluent discharged shall be subject to the wastewater permit requirements established by LMC Title 13, Division II. (Ord. 442 § 14.80).

Figure 1


San Francisco Premium Outlets
Las Positas Golf Course
Livermore Municipal Airport
Undeveloped Land
Gravel Quarries/ Industrial Ponds
SMP 39
SMP 40
Oaks Business Park
Single-Family Residences
Gravel Quarries/ Industrial Ponds
Additional Annexation Only Parcels
Legend
Subject to Planned Development - Industrial (PD-I) 22-001 Zoning
W Jack London Blvd
El Charro Rd
Arroyo Mocho
Arroyo Las Positas
Airway Blvd
Club House Dr
Lindergh Ave
Isabel Ave
Discovery Dr
Wright Brothers Ave
E Jack London Blvd
Olivina Ave
Daisyfield Dr
Summertree Dr
E Stanley Blvd
Busch Rd
Wolf House Dr
Nissen Dr
Rutan Dr
Stealth St
Arlington Rd
Rancho Las Positas Elementary School
Cedar
Hagema
Pleasure Island Park
N

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

AN ORDINANCE APPROVING A DEVELOPMENT AGREEMENT WITH LIVERMORE INDUSTRIAL PARTNERS 39, LLC AND SMP-39, LLC FOR THE SMP 39/SMP 40 PROJECT

(Development Agreement 21-001)

THE CITY COUNCIL OF THE CITY OF LIVERMORE DOES ORDAIN AS FOLLOWS:

Section 1. *Authority*. Pursuant to Government Code Section 65864 et seq., the City Council considers that certain document under City Application No. Development Agreement 21-001 and entitled "Pre-Annexation and Development Agreement (DA 21-001) [Surface Mining Permit (SMP) 39/40 Project – SMP 39 Property] ("Development Agreement"). The Development Agreement is attached hereto as Exhibit A.

Section 2. *Recommendation*. The Planning Commission held a duly noticed public hearing on March 5, 2024, to consider adoption of an ordinance approving the Development Agreement and by its Resolution No. 03-24, attached hereto as Exhibit B, recommended that the City Council adopt the ordinance and approve the Development Agreement.

Section 3. *Environmental Review*. The City Council considered the environmental review and certified the SMP 39/SMP 40 Final Environmental Impact Report by Resolution No. ____.

Section 4. *Consistency*. Development Agreement 21-001 is consistent with the General Plan and the Livermore Development Code Chapter 9.04.

Section 5. *Approval*. The City Council has considered the findings made by the Planning Commission for adoption of the Development Agreement in Planning Commission Resolution No. 03-24, and hereby adopts the same findings by this reference and incorporates them as part of this resolution, and based on the City Council's own independent review and considerations, hereby adopts this ordinance approving Development Agreement 21-001.

Section 6. *Signing Authority*. The City Manager is hereby authorized to sign the Development Agreement, attached hereto as Exhibit A, on behalf of the City of Livermore.

Section 7. *Publication and Effective Date.* This ordinance or a comprehensive summary thereof shall be published once in a newspaper of general circulation of the City of Livermore within 15 days after its adoption and shall take effect and be in force thirty days from and after its adoption.

Section 8. *Filing.* Planning Manager is directed to file a Notice of Determination for the SMP 39/SMP 40 Project Environmental Impact Report with the Alameda County Clerk.

Section 9. *Recording.* The City Clerk is directed to record the Development Agreement within 10 days after the effective date of the Development Agreement.

Section 10. *Documents.* The documents that constitute the record of proceedings upon which this decision is based on can be found in the City Clerk's Office, 1052 S. Livermore Avenue, Livermore, California.

Section 11. *Severability.* If any part of this ordinance is declared unconstitutional or invalid by a court, such unconstitutionality or invalidity shall not affect any remaining parts.

The foregoing ordinance was introduced at the meeting of the City Council of the City of Livermore held on March 25, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

The ordinance was adopted at the regular meeting of the City Council held on _____, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

_____
Mayor, City of Livermore

ATTEST:

_____
Deborah L. Elam
Acting City Clerk

APPROVED AS TO FORM:

/s/ Kimberly D. Cilley
Kimberly D. Cilley
Senior Assistant City Attorney

Exhibit A – Development Agreement 21-001
Exhibit B – Planning Commission Resolution 03-24

RECORDING REQUESTED BY AND
WHEN RECORDED MAIL TO:

City Clerk
City of Livermore
1052 South Livermore Avenue
Livermore, CA 94550

(Space Above This Line Reserved for Recorder's Use Only)

PRE-ANNEXATION AND DEVELOPMENT AGREEMENT

BY AND BETWEEN

THE CITY OF LIVERMORE

AND

LIVERMORE INDUSTRIAL PARTNERS 39, LLC; AND SMP-39, LLC

PRE-ANNEXATION AND DEVELOPMENT AGREEMENT (DA 21-001)
[SURFACE MINING PERMIT (SMP) 39/40 PROJECT – SMP 39 PROPERTY]

This Pre-annexation and Development Agreement ("Agreement") is entered into on _____, 2024 between the City of Livermore, a municipal corporation ("City"), Livermore Industrial Partners 39, LLC ("Developer") and SMP-39, LLC ("Seller"). The City, Developer, and Seller are sometimes referred to below each individually as a "Party" and collectively as the "Parties."

RECITALS

This Agreement is based on the following facts:

A. The City has the authority to enter into a development agreement under Government Code section 65864 *et seq.* ("Development Agreement Statutes") and Chapter 9.04 of the Livermore Development Code to vest certain rights to the Developer and to meet certain public purposes of the local government.

B. Seller owns approximately +/- 51.9 acres located on Jack London Boulevard, west of Oaks Business Park and south of Livermore Municipal Airport (commonly referred to as "SMP 39" or, for purposes of this Agreement, "SMP 39 Property"), which is the subject of this Agreement. SMP-40, LLC, an affiliate of Seller owns approximately +/- 41 acres (commonly referred to as "SMP 40". The aforementioned SMP numbers reference the Surface Mining Permit (SMP) numbers applicable to each site. The Surface Mining Permits for each of the sites were approved by Alameda County in 2004 to allow for the extraction of sand and gravel (i.e., aggregate) within the sites; however, aggregate mining has not occurred within either of the sites.

C. Four additional parcels that total approximately +/- 12.9 acres are located east of SMP 40 and are included in the overall project area (as set forth in more detail in Recital F and referred to as the "Additional Annexation Only Parcels"). The City has chosen to include the parcels in the proposed annexation area for purposes of efficiency and to create logical boundaries.

D. The SMP 39 Property consists of one parcel (Assessor Parcel Number (APN) 904-0003-001-04) and is situated in Alameda County, within the City of Pleasanton's Sphere of Influence ("SOI") and the City of Livermore's South Livermore Urban Growth Boundary ("UGB"). The SMP 39 Property is zoned Agriculture by Alameda County and has a County General Plan designation of Industrial. SMP 39 has a City of Livermore General Plan designation of Open Space/Sand and Gravel. The Developer is required to change the SOI for SMP 39 from the City of Pleasanton to the City of Livermore and to annex SMP 39 into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

The SMP 39 Property is described more specifically in the attached **Exhibit A**. The SMP 39 Property does not include property located within SMP 40 or the Additional Annexation Only Parcels, as described in Recitals D (above) and F (below). Development of the SMP 39 Property is described in Recitals G and H, below, and set forth in more detail in **Exhibit B** (SMP 39 Development Description) and **Exhibit C** (Conceptual Site Plan for the SMP 39 Property). Developer is in contract to purchase SMP 39 Property from Seller, and under that contract has the primary rights and obligations regarding application for and funding the Entitlements, described below in Recital I, for the SMP 39 Property as set forth in this Agreement. Developer is required to annex the SMP 39 Property into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

E. SMP-40 LLC, an affiliate of Seller, owns certain real property consisting of one parcel (APN 904-0010-002-02) and is generally located south of Oaks Business Park, at the south end of Atlantis Street and Challenger Street ("SMP 40" or "SMP 40 Property"). It is situated in Alameda County and is within the City of Livermore's SOI and the City of Livermore's South Livermore UGB. SMP 40 is zoned Agriculture by Alameda County with a County General Plan designation of Industrial. SMP 40 has a City of Livermore General Plan designation of Open Space/Sand and Gravel.

F. Four additional parcels (APNs 904-0010-002-03, -5, -7, and -8) are within unincorporated Alameda County, the City of Livermore SOI, and the City of Livermore South Livermore UGB ("Additional Annexation Only Parcels"). APN 904-0010-002-03 is an approximately 0.20-acre parcel owned by the Pacific Gas and Electric Company (PG&E) and is developed with existing PG&E infrastructure. APN 904-0010-002-05 is an approximately 5.76-acre parcel owned by the Zone 7 Water Agency and serves as a flood control channel. APN 904-0010-002-07 is an approximately 1.57-acre parcel owned by the California Department of Transportation (Caltrans) and is currently undeveloped. APN 904-0010-002-08 is an approximately 5.46-acre parcel owned by the City of Livermore and is currently undeveloped with scattered trees throughout the parcel. The City of Livermore General Plan designates the Additional Annexation Only Parcels as Open Space/Sand and Gravel. The Additional Annexation Only Parcels are also within the East County Area Plan of the Alameda County General Plan, which designates the parcels as Industrial. The parcels are zoned Agriculture by Alameda County. The Developer is required to annex the Additional Annexation Only Parcels into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

G. Due to their interrelated nature, activities involving SMP 39, SMP 40, and the Additional Annexation Only Parcels (together, the "SMP 39/SMP 40 Project") are considered in a single Environmental Impact Report ("EIR") (SCH #2023010091) for purposes of the City's environmental review under the California Environmental Quality Act ("CEQA"). The SMP 39/SMP 40 Project evaluated in the EIR includes a SOI amendment for SMP 39 and a General Plan Amendment, Pre-zoning and Annexation, Development Code Amendment/ Zoning Map Amendment/ Planned Development, Vesting Tentative Subdivision Maps, and Pre-annexation and Development Agreements for SMP 39 and SMP 40. A Site Plan Design Review entitlement is also included for SMP 40. The SMP 39/SMP 40 Project evaluated in the EIR also includes annexation of the Additional Annexation Only Parcels.

H. SMP 39 and SMP 40 shall be developed with light industrial development uses consistent with the City's *Low-Intensity Industrial* General Plan designation, including research and development, professional and administrative offices, experimental and testing laboratories, manufacturing of electronic and other high-end complex products, a limited amount of warehouse and distribution, and similar uses as stated in PD-I 22-001, the zoning for the property (**Exhibit D**). The SMP 39/SMP 40 Project includes (i) on SMP 39, approximately six light industrial buildings consisting of up to 755,500 square feet (sf) of development and, (ii) on SMP 40, two light industrial buildings consisting of up to 759,275 sf of development. **Exhibit C** shows the conceptual site plan for the SMP 39 Development. Developer and City intend that separate Pre-annexation and Development Agreements will be entered into for SMP 39 and SMP 40, respectively, in order to segregate the rights and obligations related to each property. This Agreement, as reflected herein, addresses the SMP 39 Property and no other property.

I. The Developer has applied for the following entitlements ("Entitlements") for the SMP 39 Property from the City of Livermore as required under the Livermore Development Code, to be vested in accordance with this Agreement pending a SOI change and annexation of the SMP 39 Property into the City of Livermore:

- General Plan Amendment (GPA 21-001) to change the City of Livermore designation of SMP 39 and SMP 40 from *Open Space/Sand and Gravel* (OSP/S&G) to *Low-Intensity Industrial* (LII) and to change the City of Livermore designation of the Additional Annexation Only Parcels from *Open Space/Sand and Gravel* (OSP/S&G) to *Parks, Trailways, Recreation Areas* (OSP) (the "General Plan Amendment" or "GPA");

- Pre-zoning of SMP 39 and SMP 40 (DCA 21-005, ZMA 21-002 and PD-I 22-001) by (i) amending the City's zoning map to rezone SMP 39 and SMP 40 to the *Planned Development - Industrial* (PD-I) 22-001 zoning district, which includes the "Planned Development Standards" described more fully in attached **Exhibit D**; and (ii) pre-zoning the Additional Annexation Only Parcels to *Open Space Flood Plain* (the "Prezoning"). The Prezoning shall become effective with respect to SMP 39, SMP 40, and the Additional Annexation Only Parcels upon their annexation to the City in accordance with California Government Code section 65859;

- SOI Amendment and Annexation (APZ 21-003) authorizing submittal of an application to the Alameda County Local Agency Formation Commission ("LAFCo") to (i) include SMP 39 within the City of Livermore's SOI (and remove SMP 39 from the City of Pleasanton's SOI); and (ii) annex SMP 39, SMP 40, and the Additional Annexation Only Parcels from Alameda County into the City;

- Vesting Tentative Tract Map 8656 (SUB 21-008) authorizing the creation of six development parcels for the SMP 39 Property, (the "Tentative Map"); and

- This Pre-annexation and Development Agreement (DA 21-001) to vest certain rights to the Developer and to provide specific public benefits that meet certain public purposes of the local government.

In addition to the above listed Entitlements, an EIR (SCH #2023010091) for the SMP 39/SMP 40 Project has been prepared in accordance with CEQA to evaluate potential impacts to the environment of the SMP 39/SMP 40 Project, including the Entitlements.

J. The City Council finds that the SMP 39/SMP 40 Project is in the public interest; will establish land uses compatible with the physical nature of the SMP 39 Property and the surrounding area; will generate light industrial development and activity to meet local and regional goals; and will provide certain substantial public benefits and help attain certain other public objectives including, without limitation: (i) including construction of and a $750,000 financial contribution toward off-site trail improvements, creating connections to the City's existing trail networks as identified in the *Active Transportation Plan* ("ATP"); and (ii) a commitment to the funding of $100,000, payable over a two-year term in increments of $50,000 per year, to facilitate uses that support an innovation-driven economy, generate high wage jobs, or generate substantial sales tax revenues as determined by the Director of Innovation and Economic Development. Items (i) through (ii) above, and as described more fully in Section 4, are collectively referred to as the "Public Benefits".

K. This Agreement will promote and encourage the SMP 39 Development by providing the Developer and its creditors with a greater degree of certainty of the Developer's ability to expeditiously and economically complete the development effort for the SMP 39 Property, and the Parties agree that the consideration to be received by the City pursuant to this Agreement and the rights secured to the Developer hereunder constitute sufficient consideration to support the covenants and agreements of the City and the Developer. By entering into this Agreement, the City desires to allow the Developer to design, apply for, and if approved to develop the SMP 39 Property pursuant to this Agreement, the land use ordinances, rules, regulations, and policies applicable on the "Effective Date," as defined in Section 2, and to vest in Developer, upon annexation, to the fullest extent possible under the law, development entitlements in order to complete the SMP 39 Development, consistent with Section 5 of this Agreement.

L. The SMP 39 Development has been extensively reviewed and considered by the City and its officers, agencies, and departments. The proposed uses have been found to accommodate the City's recommendations and suggestions in order to protect the public's interest and to enhance the desirability, from the public's perspective, of the SMP 39 Development.

M. The City conducted duly noticed public hearings on this Agreement pursuant to Government Code section 65867 and Livermore Development Code sections 9.04.040 and 9.04.050 and found that the provisions of this Agreement and its purposes are consistent with the objectives, policies, general land uses, and programs specified in the City's General Plan and Livermore Development Code.

N. This Agreement was adopted by ordinance of the City Council on _____, 2024 and approved upon a second reading on _____, 2024 after notice and public hearings before the Planning Commission and City Council, and after City Council certification of an EIR in accordance with CEQA, Public Resources Code section 21000 *et seq.*

NOW, THEREFORE, the City and Developer hereby agree that the aforementioned recitals are true and correct and incorporated by reference as fully set forth below, and further agree as follows:

1. The Property. The SMP 39 Property is described in **Exhibit A**, attached hereto. The SMP 39 Development includes six light industrial buildings consisting of up to 755,500 sf of development. A comprehensive description of the SMP 39 Development is in attached **Exhibit B** (SMP 39 Development Description) and **Exhibit C** (Conceptual Site Plan for the SMP 39 Property). A future Site Plan Design Review land use entitlement will be required to be approved prior to the development of SMP 39.

2. Effective Date. The effective date of this Agreement (the "Effective Date") is the later of (a) thirty (30) days after the date the Ordinance approving this Agreement is adopted by the City Council and attested by the City Clerk, (b) if a referendum petition is timely and duly circulated, filed and qualified by the Elections Official, the date the election results on the ballot measure by City voters approving this Agreement are certified by the City Council in the manner provided by the Elections Code, or (c) the date the sphere of influence amendment and annexation proceedings are complete. This Agreement shall be executed by the City within ten (10) days after the Effective Date and recorded as provided in Government Code Section 65868.5.

3. Term. The term of this Agreement is ten (10) years ("Term"), beginning on the Effective Date as defined in Section 2 of this Agreement. The Agreement may be extended as provided for in the Development Agreement Statutes and the Livermore Development Code, subject to the written consent of the City and Developer. The terms of the Entitlements shall be automatically extended such that the Entitlements remain in effect for any extended Term.

   Following the earlier of the expiration of the Term, the completion of development of the SMP 39/SMP 40 Project and all of Developer's obligations in connection therewith, or the failure of SMP 39, SMP 40, or the Additional Annexation Only Parcels to be annexed into the City of Livermore in accordance with Section 5(g) of this Agreement, this Agreement shall be terminated and shall have no further force and effect, subject, however to the provisions of Sections 10, 13 and 16.

4. Developer Obligations; Schedule of Performance. The Developer shall comply with the requirements set forth in the Schedule of Performance and tasks listed below. The Schedule of Performance is subject to revision from time-to-time as mutually agreed upon in writing between the City and the Developer, which shall be accomplished through a separate document and without the need to amend this Agreement. The City Manager shall have the authority to approve on behalf of the City any revision to a date in the Schedule of Performance that he or she deems appropriate, provided that the

revision extends the performance deadline for a time period no longer than one year. Developer shall comply with the following Schedule of Performance:

a. Developer shall initiate and pay all costs associated with timely applications for the SOI amendment for SMP 39 and the annexation for SMP 39, SMP 40, and the Additional Annexation Only Parcels, which shall be reviewed by the appropriate decision-making bodies for each parcel, which may include the City of Pleasanton, Livermore City Council and Alameda County LAFCo.

b. The SMP 39 Development includes installation of an Emergency Vehicle Access and Storm Drain main on City owned land subject to FAA regulations and requirements. The use of the City owned land shall be subject to additional requirements including but not limited to FAA approval, Consistency Determination, compensation for use of City land, appraisals, and additional mapping. All actions necessary for the project's use of City owned land shall be processed prior to the filing of the Final Map for SMP 39.

c. Developer shall pay a $100,000 cash contribution to the City of Livermore Office of Innovation and Economic Development Department for marketing SMP 39 for the desired land uses identified in PD-I 22-001.

    i. Prior to issuance of the first building permit for the SMP 40 Property, the Developer shall pay an initial $50,000 cash contribution to the City of Livermore Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001.

    ii. Developer shall pay a second $50,000 contribution to the City of Livermore Office of Innovation and Economic Development Department no later than one (1) year following the receipt of the initial $50,000 contribution, to be used toward further marketing SMP 39 for the desired land uses identified in PD-I 22-001.

    iii. The SMP 40 Development Agreement contains the same contribution requirements in Section 4(b) of that agreement. For avoidance of doubt, there is a total $100,000 obligation between the two Development Agreements and a payment under one Development Agreement shall automatically satisfy this obligation under the other Development Agreement.

    iv. The Development Agreement for the SMP 40 property (DA 23-002) describes the Developers requirements related to the off-site trail improvements. In the event that the development of SMP 39 proceeds in advance of the development of SMP 40, the Developer is required to amend this Development Agreement and DA 23-002 prior to issuance of any building permit for SMP 39, in accordance with Livermore Development Code Chapter 9.04.

5. Vested Development Rights. Subject to annexation into the City and the terms of this Agreement, SMP 39 Development shall vest in accordance with this Agreement, and the Developer has the right to develop and use the SMP 39 Property in accordance with:

   a. The City's General Plan, the Livermore Development Code, and the Entitlements in effect on the Effective Date;

   b. All other City policies, ordinances, resolutions, rules, regulations, and standards applicable to development or use of the SMP 39 Property on the Effective Date, except that Developer shall:

      (1) Pay the processing and development impact fees applicable City-wide that are in effect at the time the fees are paid. Payment for said fees shall be made prior to issuance of any building permits.

      (2) Comply with Building Code requirements in effect on a City-wide basis at time of Building permit submittal;

      (3) Comply with construction and technical design standards or specifications for public improvements that are applicable City-wide at time of Building permit submittal;

      (4) Comply with changes in City laws, regulations, plans, or policies applicable City-wide, the terms of which are found by the City Council, based on substantial evidence, to be necessary to protect members of the public from a condition dangerous to public health or safety;

      (5) Comply with a change in City law, regulations, plans, or policies that is:

         i. Specifically mandated by state or federal law, or by any regional governmental agency that has legal authority over the City under state law or a joint powers agreement; or

         ii. A result of or in response to state or federal law, or regional agency action, made necessary in order for the City to avoid losing or not receiving substantial funding or other substantial public benefits or facilities that would be available to the City only if it makes such a change; or

         iii. Specifically mandated by, or necessary for compliance with or implementation of, the terms of any permit, entitlement, or other authorization necessary for the development of the Property that is issued or granted to the City, County, and/or Developer by any federal, state or regional agency;

      (6) Following any subsequent environmental review, comply with required mitigation measures; and

c. In the event that Developer applies for any subsequent entitlements, including but not limited to a Site Plan Design Review for the SMP 39 Property, subsequent entitlements shall be subject to the City's ordinances, rules, regulations and policies in effect on the date of submittal of the subsequent entitlements.

d. If there is any inconsistency between this Development Agreement and a permit or entitlement issued for the SMP 39 Property, this Development Agreement shall control.

e. Developer acknowledges that execution of this Agreement by the City does not constitute approval of any required permits, applications, or allocations, and in no way limits the discretion of the City in the permit, allocation, and approval process in accordance with the limitations set forth herein.

f. Upon annexation of SMP 39 and 40, Developer agrees that all mining permits previously granted by Alameda County on the SMP 39 and SMP 40 properties shall be forfeited, and no mining operations shall occur on the SMP 39 Property or the SMP 40 Property. No later than 60 days from the date LAFCo approves annexation of the SMP 40 Property, subject to any extension granted by the City, Developer shall coordinate with Alameda County to complete any final actions required to remove the mining permits and all associated permissions related to mining operations from the SMP 39 and SMP 40 properties.

g. The Parties agree that the obligations set forth in this Agreement are conditioned upon the passing of a City Council Resolution authorizing submittal of an application to LAFCo for SOI amendment and Annexation, the filing of an application with LAFCo to amend the SOI for SMP 39, annex SMP 39, SMP 40 and the Additional Annexation Only Parcels, requesting waiver of notice, hearing and protest from LAFCo, subject to LAFCo approval. Furthermore, the Parties also agree that the obligations set forth in this Agreement are conditioned upon the approved and finalized SOI amendment and annexation of the SMP 39 and SMP 40 Properties and the Additional Annexation Only Parcels into the City of Livermore. Upon approval of the SMP 39/SMP 40 Project by the City, the City agrees to act in good faith, in collaboration with the Developer, to support and timely process the SOI amendment and annexation application with LAFCo. The Developer shall be responsible for all costs associated with the SOI amendment and annexation proceedings, including but not limited to preparation of the LAFCo application, LAFCo application submittal fees, and any other City-related annexation fees. The SOI amendment and annexation of SMP 39, SMP 40, and the Additional Annexation Only Parcels shall be completed no later than 18 months from the Effective Date of this Agreement, unless extended by written agreement of the Parties. If the SOI and annexation proceedings are not completed within this time period, subject to any agreed upon extension, this Agreement shall be terminated and shall have no further force and effect, subject however to the provisions of Sections 10, 13, and 17.

h. Developer shall not dispute or challenge the validity of the Pre-annexation and Development Agreement for SMP 40. Any legal challenge to the validity or

enforceability of the Pre-annexation and Development Agreement for SMP 40 shall constitute a legal challenge to the Pre-annexation and Development Agreement for SMP 39 and the SMP 39/SMP 40 Project. In the event of a valid legal challenge, this Agreement shall be terminated after all appeals have been exhausted before a final court of judgment, or issuance of a final court order directed to the City to set aside, withdraw or abrogate the City's approval of this Agreement or the Pre-annexation and Development Agreement for SMP 40.

7. Periodic Review. Review of this Agreement shall be made annually, consistent with Government Code section 65865.1 and Livermore Development Code Chapter 9.04.

8. Amendments. The Agreement may be amended in writing by the Parties, by mutual agreement, consistent with the procedures set forth in the Development Agreement Statutes and the Livermore Development Code, as they are amended from time-to-time.

9. Force Majeure. The Term of this Agreement shall be extended by, and the performance by any Parties of their obligations hereunder (other than for payment of money) shall be excused during, any period of "Force Majeure" as hereinafter defined. "Force Majeure" means a delay caused by any labor disputes or strikes, labor or material shortages or embargoes, pandemic, fire, unusual delay in transportation, earthquakes, floods, tornadoes or extreme wind or other adverse weather conditions not reasonably foreseeable by Developer, or material adverse underground conditions not reasonably foreseeable by Developer.

10. Remedies for Default. If a Party is in default under this Agreement, another Party may pursue one or more of the following courses of action after providing 30 days' written notice to the purportedly defaulting Party (or such longer period as may be required to cure the default, so long as such Party commences the cure within such 30-day period and diligently pursues the cure to completion): (a) waive the default; (b) in the City's case, pursue administrative remedies, including denial or otherwise withholding issuance of building permits, certificates of occupancy, or other approvals; (c) pursue judicial remedies; or (d) terminate this Agreement. Any purported default by a Party hereunder shall be subject to, and tolled by, any event of Force Majeure that prevents such Party from performing the act necessary to avoid or cure such purported default. Any such tolling shall end at the termination of the event of Force Majeure.

11. Termination. This Agreement shall terminate upon the earlier of (i) expiration of the Term, or (ii) in the event that SMP 39, SMP 40, or the Additional Annexation Only Parcels are not annexed into the City in accordance with Section 5(g) of this Agreement (iii) when the SMP 39/SMP 40 Project has been completed and all of Developer's obligations have been fully satisfied as reasonably determined by the City, or (iv) after all appeals have been exhausted before a final court of judgment, or issuance of a final court order directed to the City to set aside, withdraw or abrogate the City's approval of this Agreement or any material part thereof, or the Pre-annexation and Development Agreement for SMP 39 or any material part thereof.

Upon termination of this Agreement as to the SMP 39/SMP 40 Project, at the request of Developer, the City shall record a Notice of Termination for each affected parcel in a form satisfactory to the City Attorney in the Office of the Alameda County Recorder. In the event this Agreement is terminated, neither party shall have any further rights or obligations hereunder except for those obligations of Developer set forth in Section 10 (Remedies for Default), Section 13 (No Damages Relief) and Section 17 (Legal Action; Attorneys' Fees).

12. Mortgagee Protection.

i. This Agreement shall not prevent or limit Developer in any manner, at Developer's sole discretion, from encumbering the Property or any portion thereof or any improvement thereon by any mortgage, deed of trust, or other security device securing financing with respect to the Property ("Mortgage"). This Agreement shall be superior and senior to any lien placed upon the Property or any portion thereof after the date of recording this Agreement, including the lien of any Mortgage. Notwithstanding the foregoing, no breach hereof shall defeat, render invalid, diminish, or impair the lien of any Mortgage made in good faith and for value, but all of the terms and conditions contained in this Agreement shall be binding upon and effective against and inure to the benefit of any person or entity, including any deed of trust beneficiary or mortgagee ("Mortgagee") who acquires title to the Property, or any portion thereof, by foreclosure, trustee's sale, deed in lieu of foreclosure, or otherwise.

ii. *Liability for Past Defaults*. Any Mortgagee, including the successful bidder at a foreclosure sale, who takes title and possession of the Property, or any portion thereof, pursuant to such foreclosure, shall take the Property, or portion thereof, subject to the provisions of this Agreement; provided, however, in no event shall such Mortgagee be liable for any defaults or monetary obligations of Developer arising prior to acquisition of title to the Property by such Mortgagee. Notwithstanding the preceding sentence, in no event shall any such Mortgagee or its successors or assigns be entitled to a building permit, final inspection, or occupancy certificate until all fees and other monetary obligations due under this Agreement have been paid to the City and any other existing defaults under this Agreement that are reasonably subject to cure are cured.

iii. *Notice of Default to Mortgagee; Right of Mortgagee to Cure.* If City receives a notice from a Mortgagee requesting a copy of any Notice of Default given to Developer hereunder and specifying the address for service thereof, then City shall deliver to such Mortgagee, concurrently with service thereon to Developer, any notice given to Developer with respect to any claim by City that Developer has committed a default. If the City makes a determination of noncompliance hereunder, City shall likewise serve notice of such noncompliance on such Mortgagee concurrently with service thereof on Developer. Each Mortgagee shall have the right (but not the obligation) during

the same period available to Developer to cure or remedy, or to commence to cure or remedy, the event of default claimed or the areas of noncompliance set forth in City's notice.

13. No Damages Relief. The Parties acknowledge that the City would not have entered into this Agreement were it exposed to damages claims from Developer for any breach thereof. As such, the Parties agree that in no event shall Developer be entitled to recover damages against City for breach of this Agreement. To the extent permitted by law, specific enforcement of this Agreement, including specific performance of Developer's payment obligations set forth in Sections 4(b) and 4(c), is the proper and desirable remedy.

14. Recordation: Binding Effect. This Agreement shall be recorded in the office of the Alameda County Recorder and shall be binding upon and inure to the benefit of any successors in interest to the Parties. The Parties acknowledge that, as of the date of preparing this Agreement, the Property is owned in fee by Seller and that Seller shall have all rights and obligations of "Developer" under this Agreement.

15. Release Upon Transfer. Upon the sale, transfer, or assignment, in whole or in part, of Developer's right and interest to all or any portion of the Property, Developer shall be released from its obligations hereunder with respect to the portion so conveyed, provided: (i) Developer (or transferee) was not in default of this Agreement at the time of conveyance, (ii) Developer provided to City prior written notice of such transfer, and (iii) with respect to sale or transfer of any lot that has not been fully improved, the transferee executes and delivers to City a written assumption agreement in which: (a) the name and address of the transferee is set forth, and (b) the transferee expressly assumes the obligations of Developer under this Agreement as to the portion of the Property conveyed. Failure to deliver a written assumption agreement hereunder shall not negate, modify, or otherwise affect the liability of any transferee pursuant to the provisions of this Agreement.

16. Timing of Development.

    a. Because the California Supreme Court held in *Pardee Construction Co. v. City of Camarillo*, 37 Cal.3d 465 (1984), that the failure of the parties therein to provide for the timing of development resulted in a later adopted initiative restricting the timing of development to prevail over the parties' agreement, it is the Parties' intent to avoid that result by acknowledging, that unless provided for in this Agreement, Developer shall have the right (without obligation) to develop the Property in such order and at such rate and at such times as Developer deems appropriate within the exercise of its subjective business judgment, subject to the terms, requirements and conditions of the Entitlements and this Agreement.

    b. Developer will use its best efforts, in accordance with its own business judgment and taking into consideration market conditions and other economic factors influencing Developer's business decision, to commence or to

continue development, and to develop the Project in a regular, progressive, and timely manner in accordance with the terms, requirements and conditions of the Entitlements and this Agreement.

17. Legal Action; Attorneys' Fees. If the City chooses to defend any third party claim or suit challenging any action taken by the City with regard to this Agreement or any procedure or aspect of the City's approval of the development of the SMP 39 Development, including the environmental review process, the Developer in its capacity as either Developer or owner of the Property agrees to reimburse the City for the City's reasonable attorneys' fees, expert witness fees, and related costs as the City may incur in connection with its retention of outside counsel, and for any award of court costs or fees against the City. The City has the right to choose and retain such legal counsel as the City deems appropriate. After expenses reach $100,000, and each $100,000 thereafter, the Parties will confer to review the status of the litigation and their options for proceeding or settling, and they will negotiate in good faith about how the expenses will be allocated. The Developer, in its capacity as the Developer or owner of the Property, shall have no obligation to reimburse the City for costs incurred after the date on which the Developer or owner of the Property give the City written notice of their decision to settle a case, even if the City does not agree to the settlement. If legal action is brought by one of the Parties to enforce a provision of this Agreement, the prevailing party is entitled to reasonable attorneys' fees, expert witness fees, and court costs.

18. Notices. The address of each party for the purpose of all notices permitted or required by this Agreement is as follows:

To City:
City of Livermore
1052 South Livermore Avenue
Livermore, CA 94550
Attention: Community Development Director
and Ashley Vera, Senior Planner

With a copy to:
City Attorney
City of Livermore
1052 South Livermore Avenue
Livermore, CA 94550

To Developer:
Overton Moore Properties
19700 South Vermont Avenue, Suite 101
Torrance, CA 90502
Attention: Timur Tecimer

With a copy to:
Cox, Castle & Nicholson LLP
50 California Street, Suite 3200
San Francisco, CA 94111
Attention: Christian Cebrian

To Seller: SMP-39, LLC
1459 18th St #317
San Francisco, CA 94107
Attention: Jennifer Jimenez-Cruz

With a copy to: Allen Matkins
Three Embarcadero Center
12th Floor
San Francisco, CA 94111
Attention: Marshall Wallace

The written address of each Party set forth above may be changed by written notice given not less than five (5) days prior to the date such change is to be in effect. All notices under this Agreement shall be in writing, shall be properly addressed, and shall be sent by personal delivery, United States mail (registered, certified, or Express Mail, return receipt requested and postage prepaid), or by overnight courier delivery service. All such notices shall be considered delivered: (i) if personally delivered, on the date of delivery; (ii) if sent by United States mail in the manner prescribed above, on the date shown on the return receipt for acceptance or rejection; or (iii) if sent by overnight courier delivery service, on the date of delivery or attempted delivery as shown by the written delivery record of such service.

19. Severability; Choice of Law. If any term, provision, condition, or covenant of this Agreement, or the application thereof to any Party or circumstances, shall to any extent be held invalid or unenforceable, the remainder of the instrument, or the application of such term, provision, condition, or covenant, or the application of such term, provision, condition, or covenant to persons or circumstances other than those as to whom or which it is held invalid or unenforceable, shall not be affected thereby and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law. This Agreement shall be governed by the laws of the State of California.

20. Covenants Run with the Land. All of the terms, provisions, covenants, conditions, rights, powers, duties and obligations contained in this Agreement shall be binding upon the parties and their respective heirs, successors and assigns acquiring any portion of the Property and shall inure to the benefit of the parties and their respective heirs, successors and assigns.

21. No Third Party Beneficiaries. This Agreement is entered only for the benefit of the Parties executing this Agreement, and their successors in interest. This Agreement is not for the benefit of any other individual, entity or person. Nothing herein shall be construed to create any right of any third party to enforce this Agreement or to seek any benefit therefrom.

22. Time Is of the Essence. Time is of the essence for each provision of this Agreement for which time is an element.

23. Certificate of Compliance. Any Party may, at any time, request that the City indicate in writing: (i) whether this Agreement is in full force and effect; (ii) whether this Agreement has been amended or modified, and if so amended, the nature of any such amendments; or (iii) whether to the best of City's knowledge the requesting Party is in default in the performance of any of its obligations under this Agreement, and if in default, the nature of any such default. City shall endeavor in good faith to respond to any such request within thirty (30) days following the receipt thereof. The Parties shall be entitled to one certificate of compliance per year without any fee being assessed by the City. For any additional certificates of compliance requested in a single year, the City may charge the requesting party a reasonable fee related to the actual cost to prepare the certificate.

24. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which constitute one and the same instrument.

[Signatures on following page]

IN WITNESS WHEREOF, the Parties have signed this Pre-annexation and Development Agreement on the dates indicated below.

DEVELOPER

LIVERMORE INDUSTRIAL PARTNERS 39, LLC

By: _____

Date: 3.19.24 Title: Manager

SELLER

SMP-39, LLC

By: _____

Date: _____ Title: _____

CITY OF LIVERMORE

By: _____

Date: _____ Title: _____

Attest:

_____

City Clerk

Approved to as Form:

_____

Assistant/City Attorney

IN WITNESS WHEREOF, the Parties have signed this Pre-annexation and Development Agreement on the dates indicated below.

DEVELOPER

LIVERMORE INDUSTRIAL PARTNERS 39, LLC

By: _____

Date: _____ Title: _____

SELLER

SMP-39, LLC

By: _____

Date: 3/19/24 Title: CEO

CITY OF LIVERMORE

By: _____

Date: _____ Title: _____

Attest:

_____

City Clerk

Approved to as Form:

_____

Assistant/City Attorney

Exhibits:

A **SMP 39 Property Description**

B **SMP 39 Development Description**

C **Conceptual Site Plan for SMP 39 Property**

D **Planned Development-Industrial (PD-I) 22-001 Zoning Standards**

EXHIBIT A

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF LIVERMORE, IN THE COUNTY OF ALAMEDA, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

ALL THAT REAL PROPERTY SITUATE IN THE SANTA RITA RANCHO, ALAMEDA COUNTY, CALIFORNIA, BEING A PORTION OF THE LAND DESCRIBED AS PARCELS 1 AND 2 IN THE GRANT DEED TO PLEASANTON GRAVEL COMPANY, A CALIFORNIA CORPORATION, AS RECORDED DECEMBER 15, 1977, ON REEL 5181, AT IMAGE 177 (SERIES NO. 77-247154), ALAMEDA COUNTY RECORDS, BEING DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID PARCEL 1; THENCE ALONG THE WESTERLY LINE OF SAID PARCEL 1, SOUTH 00° 28' 57" WEST, 1000.01 FEET MORE OR LESS TO A POINT DISTANT 1000 FEET SOUTHERLY OF, MEASURED AT RIGHT ANGLES, TO THE NORTHERLY LINE OF SAID PARCELS 1 AND 2 AND THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE PARALLEL TO THE NORTH LINE OF SAID PARCELS 1 AND 2, SOUTH 89° 24' 17" EAST, 4493.91 FEET TO A POINT ON THE EASTERLY LINE OF SAID PARCEL 2; THENCE ALONG THE EAST LINE OF SAID PARCEL 2, SOUTH 00° 16' 36" WEST, 469.21 FEET; THENCE LEAVING SAID EAST LINE, SOUTH 89° 39' 52" WEST, 4496.04 FEET TO INTERSECT THE WEST LINE OF SAID PARCEL 1; THENCE ALONG THE SAID WEST LINE, NORTH 00° 28' 57" EAST, 542.25 FEET TO THE POINT OF BEGINNING.

ASSESSOR'S PARCEL NO. 904-0003-001-04

SMP 39 Development Description

Assessor Parcel Number 904-3-1-4 is also known as SMP 39 ("SMP 39 Property"). The aforementioned SMP number references the Surface Mining Permit (SMP) numbers applicable to the site. The Surface Mining Permit for the SMP 39 Property was approved by Alameda County in 2004 to allow for the extraction of sand and gravel (i.e., aggregate) within the site; however, aggregate mining has not occurred within the SMP 39 Property. The SMP 39 Property is approximately 51.9 acres and is located within unincorporated Alameda County, the City of Pleasanton (SOI), and the City of Livermore South Livermore Urban Growth Boundary (UGB). The Property is zoned Agriculture by Alameda County with a County General Plan designation of Industrial. The SMP 39 Property has a City of Livermore General Plan designation of Open Space/Sand and Gravel.

Surrounding existing uses include a paved shared-use path and the Livermore Municipal Airport to the north, the Oaks Business Park to the east; and the Arroyo Mocho Trail and single-family residences further east, across Isabel Avenue/SR 84; gravel quarries and industrial ponds associated with mining operations to the south and SMP 38, Arroyo Mocho and industrial ponds to the west.

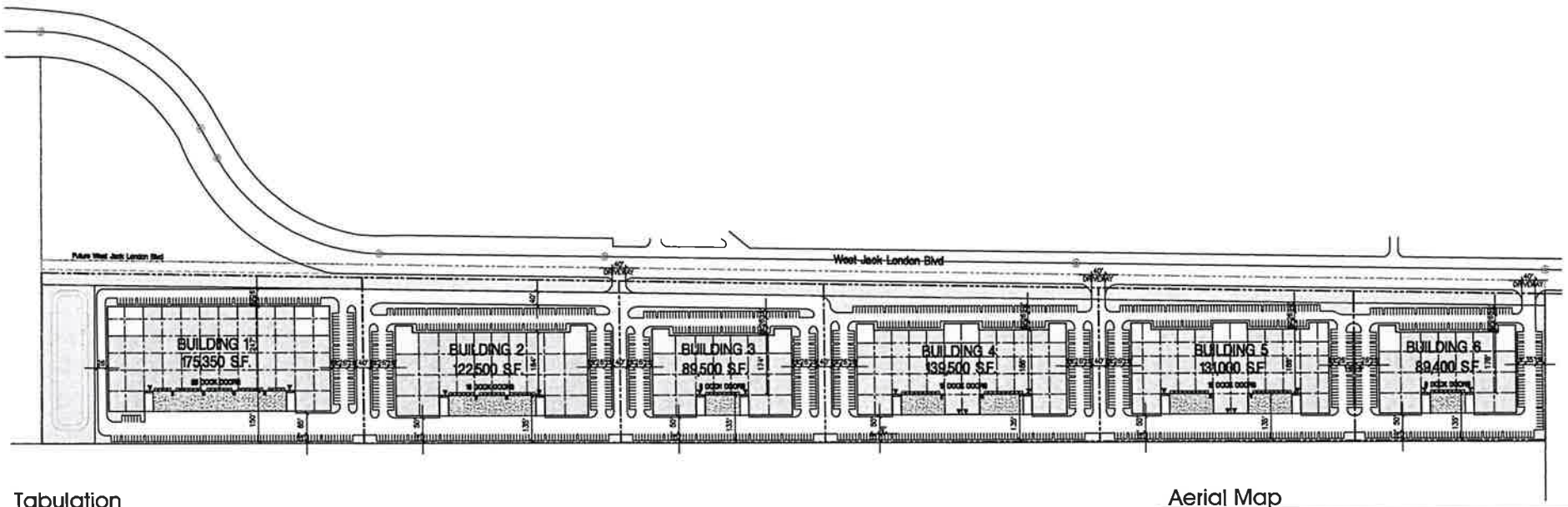
Developer shall construct six light industrial buildings on the SMP 39 Property totaling up to 755,500 square feet (sf) of new building area and associated internal roadways, parking, landscaping, utilities and other improvements ("SMP 39 Development").

The SMP 39 Development shall comply with the development requirements including land use, building and landscape setbacks, height, lot coverage, parking, and other required standards as set forth in the Planned Development-Industrial 22-001 (PD-I 22-001) zone. The loading docks shall be located on the south side of each building, opposite from West Jack London Boulevard, accessible through a larger drive aisle along the southern portion of the site.

The SMP 39 Development shall include frontage improvements to and right-of-way dedication for the ultimate buildout of West Jack London Boulevard. Ultimate buildout of the roadway shall consist of four through lanes, including two 12-foot through lanes on each side, a 16-foot raised and landscaped median in the center of the roadway, as well as an eight-foot bike line on each side of the roadway, separated from the through lanes by a two-foot buffer. As part of the proposed frontage improvements, the SMP 39 Development shall include an at-grade, paved shared-use path within a 38.5-foot trail easement along the project frontage, consistent with the City's Active Transportation Plan (ATP), which shall provide a connection to the existing path along the western boundary of the Oaks Business Park and eventually to the Arroyo Mocho Trail. The proposed path shall be similar to the existing path along the Oaks Business Park site.

EXHIBIT C

EXHIBIT A

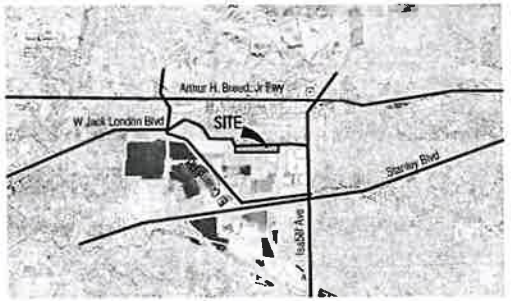


Tabulation

	BLDG.1	BLDG.2	BLDG.3	BLDG.4	BLDG.5	BLDG.6	TOTAL
SITE AREA							
In s.f.	473,671	367,700	285,788	363,649	337,531	256,615	2,084,953 s.f.
In acres	10.87	8.44	6.56	8.35	7.75	5.89	47.86 ac
BUILDING AREA							
Office	20,000	10,000	6,000	10,000	10,000	6,000	62,000 s.f.
Industrial	155,350	112,500	83,500	129,500	121,000	83,400	685,250 s.f.
TOTAL	175,350	122,500	89,500	139,500	131,000	89,400	747,250 s.f.
COVERAGE	37.0%	33.3%	31.3%	38.4%	38.8%	34.8%	35.8%
AUTO PARKING REQUIRED							
Office: 1/300 s.f.	67	33	20	33	33	20	207 stalls
Industrial 1/1,200 s.f.	129	94	70	108	101	70	571 stalls
TOTAL	196	127	90	141	134	90	778 stalls
CLIENT REQUIRED AUTO PARKING							
Standard 2/1000 s.f.	351	245	177	279	256	176	1,484 stalls
AUTO PARKING PROVIDED							
Standard (9' x 19')	204	280	225	287	268	227	1,491 stalls

Note: This is a conceptual plan. It is based on preliminary information which is not fully verified and may be incomplete. It is meant as a comparative aid in examining alternate development strategies and any quantities indicated are subject to revision as more reliable information becomes available.

Aerial Map



Legend

- POTENTIAL OFFICE
- INDUSTRIAL
- LANDSCAPE
- ▼ DRIVE THRU DOOR

north

1" = 120'
0 120' 240' 360'

HPA architecture

Conceptual Site Plan

Jack London Blvd.

Livermore, CA

OMP
OVERTON MOORE PROPERTIES

18831 Bardeen Ave. - Ste. #100
Irvine, CA 92612
(949) 863-1770
www.hparchs.com

August 18, 2023 / Job #20061

Scheme 14

PLANNED DEVELOPMENT STANDARDS SMP 39 & SMP 40

Planned Development – Industrial (PD-I) 22-001

Reviewed by Planning Commission: March 5, 2024
Approved by City Council: March 25, 2024

Purpose: The purpose of establishing this Planned Development-Industrial (PD-I 22-001) District (District) is to regulate the development of ± 51.9 acres of land located on Jack London Boulevard, west of Oaks Business Park and south of Livermore Municipal Airport (commonly referred to as "SMP 39") and ± 41 acres of land located south of Oaks Business Park, at the south end of Atlantis Street and Challenger Street (commonly referred to as "SMP 40"), as shown in the attached figure (Figure 1). The intent of this District is to accomplish the following:

1. PD-I 22-001 is intended to provide an environment exclusively for and conducive to the development and protection of modern professional and administrative facilities, research institutions, manufacturing operations, experimental and testing laboratory and related uses, any similar employment generating high-end industrial users, all of a non-nuisance type.
2. The District is intended to provide for an aesthetically attractive working environment with park- and/or campus-like grounds, attractive buildings, employee parking, and other amenities appropriate to a mix of office and industrial uses.
3. The District is intended to establish development standards and regulations consistent with the intent of the Low Intensity Industrial General Plan designation.
4. Any land use that utilizes hazardous materials shall be subject to the regulations of Section 6.02.040, Hazardous Materials, of the Livermore Development Code, as it exists now or is amended in the future.
5. Development shall be in conformance with the requirements of the Livermore Development Code as it exists now or is amended in the future, except as modified by the following regulations.
6. Development is subject to the Citywide Design Standards and Guidelines as they exist now or may be amended in the future unless otherwise modified by the following regulations.

A. Principal Permitted Uses:

The following are the principal permitted uses for SMP 39[1] and SMP 40:

1. Research and development facilities
2. Professional and administrative offices
3. Experimental and testing laboratories
4. Manufacture of electric and electronic circuits, instruments, and devices
5. Manufacture of pharmaceutical products or life science facility, not exceeding Biosafety Level 2[2]
6. Medical diagnostic and manufacturing facilities
7. Manufacturing and assembly of motor vehicle parts, including but not limited to dashboards, parts, component systems, electrical connectors, sensors, panels, airbags, seats, tires, windows etc. for all vehicles and similar equipment (e.g. automobiles, motorcycle, construction equipment, farm equipment, buses).
8. Similar uses as determined by the Community Development Director to be of the same general character as the listed uses.

Additional Permitted Uses for SMP 39 only:

1. Restaurants, except fast food

Additional Permitted Uses for SMP 40 only:

1. Warehousing and distribution facilities, dry or refrigerated
2. Warehousing and distribution facility – E-commerce/Third Party Logistics (3PL)
3. Manufacturing, assembly, processing, storage, or packaging of products from previously prepared materials such as, but not limited to, cloth, plastic, paper, leather, and precious or semi-precious metals or stones, but not including the following:
   A. Operations such as saw and planing mills, any manufacturing uses involving primary production of wood, metal, or chemical products from raw materials, and similar uses
   B. Vehicle dismantling yards, scrap and waste yards
   C. Manufacturing, processing, storing, or packaging chemicals, petroleum,

[1] SMP 39 and SMP 40 are located with the Airport Influence Area and the Livermore Airport Protection Area. Per the Alameda County Airport Land Use Compatibility Plan, the majority of SMP 39 is located in Safety Zone 6, with a portion of the site located in Safey Zone 3. The principal permitted land uses are intended to be located in buildings that are only within the portion of SMP 39 that is located in Safety Zone 6.

[2] Per the Centers for Disease Control and Prevention, Biosafety Level 2 laboratories involve work that poses moderate hazards to laboratory workers and the environment. Biosafety Level 2 laboratories require safety protocols to contain microbes and biological agents.

heavy agricultural products or other hazardous materials.

4. Sale of heavy equipment and construction related vehicles and equipment, including associated repair, service, and parts distribution facilities. Showrooms related to this use may be a conditionally permitted ancillary use.
5. Similar uses as determined by the Community Development Director to be of the same general character as the listed uses.

B. Conditional Uses for SMP 39 and 40:

1. Public and quasi-public uses.
2. Manufacture of pharmaceutical products or life science facility, not exceeding Biosafety Level 3[3]
3. Similar uses as determined by the Planning Commission to be of the same general character as the listed uses.

Conditional Uses for SMP 39 only:

1. Fast-food businesses, banks, personal services, or goods required for the convenience and support of occupants of uses in the surrounding district(s).
2. Warehouse and distribution facilities, including E-commerce/Third Party Logistics (3PL) uses, with the condition that these uses may only occupy up to 20 percent of the total buildable site area.
3. Sale of heavy equipment and construction related vehicles and equipment, including associated repair, service, and parts distribution facilities, provided they are manufactured and/or sold on-site. Showrooms related to this use may be a conditionally permitted ancillary use.
4. Similar uses as determined by the Planning Commission to be of the same general character as the listed uses.

C. Accessory Uses Permitted on SMP 39 and 40:

1. Signs subject to the requirements established by the Livermore Development Code, as well as the Citywide Design Standards and Guidelines, as it exists now or is amended in the future.
2. Accessory uses and buildings customarily appurtenant to a permitted use.
3. Living quarters determined by the Community Development Director to be necessary for surveillance purposes.
4. Fuel stations subject to the requirements of Section 6.03.160, Vehicle Services,

[3] Per the Centers for Disease Control and Prevention, laboratories designated Biosafety Level 3 involve work that poses a safety hazard greater than Biosafety Level 2 laboratories, defined above. Biosafety Level 3 laboratories require additional safety protocols beyond those required for Biosafety Level 2 laboratories to contain microbes and biological agents.

of the Livermore Development Code, as it exists now or is amended in the future.

D. Special Development Requirements for SMP 39 and 40:

1. Uses shall be designed and integrated into the site in a manner that maintains and is complementary to the corporate and professional character of the nearby Oaks Business Park.
2. Outdoor service and storage yards shall be screened from public view consistent with Livermore Development Code Section 6.03.100, Outdoor Storage, as it exists today or is amended in the future.
3. For SMP 40 only: Commercial/Industrial buildings shall be located a distance of at least 500 feet from Isabel Avenue.

E. Site Development Regulations for SMP 39 and 40:

The following minimum requirements shall be observed, except where increased for conditional uses:

1. Lot Area: Twenty thousand square feet
2. Lot Width: One hundred feet
3. Setbacks: Setback requirements are established below. Buildings shall not be permitted within required setbacks.

A. SMP 39

1) Front or Street Side: 40-feet on West Jack London Boulevard, and 30-feet on frontage roads and interior streets, except as required by subsection E.4. All required setbacks adjacent to streets shall be landscaped, except for driveways, sidewalks, and trails that are found to be necessary for the efficient use of the property. Where a building front is visible from the street, a minimum five-foot wide landscaped strip abutting the foundation shall be included, allowing for necessary entrances.

2) Rear and Side: None.

B. SMP 40

1) Front or Street Side: 500-feet from Isabel Avenue, and 30-feet on frontage roads and interior streets, except as required by subsection E.4. All required setbacks adjacent to streets shall be landscaped, except for driveways and sidewalks that are found to be necessary for the efficient use of the property. Where a building front is visible from the street, a minimum five-foot wide landscaped strip abutting the foundation shall be included, allowing for necessary entrances.

2) Rear and Side: None, except for a 20-foot setback from the top of the Arroyo Mocho bank on SMP 40 which should be

determined from a 2.5:1 slope projection from the toe of channel/mining pit to the top, as required in the Environmental Impact Report for the project.

4. Height Regulations: The height of all on-site structures, including roof-top mechanical equipment, is limited to 50 feet or the height permitted by the Federal Aviation Administration (FAA) review under FAA regulations – Part 77, whichever is more restrictive. Upon providing a minimum 40-foot setback from street rights-of-way, a Conditional Use Permit may be requested to increase height to a maximum of 55 feet, or the height permitted under FAA regulations – Part 77, whichever is more restrictive. The height of pole-and building-mounted lights may be approved up to 28 feet by an administrative site plan and design review, if found necessary for the health and safety of a site designed for truck or other large vehicle maneuvering and documented by a light study to not cause glare off-site.
5. Lot Coverage: The building coverage maximum shall be 45 percent.

F. Signs

1. Industrial Uses. Signs for industrial uses shall be subject to the sign regulations contained in Livermore Development Code section 4.06.230 (sign standards for I-1, I-2 and I-3) and the Citywide Design Standards Guidelines as it exists now or is amended in the future.
2. Commercial Uses. Signs for commercial uses shall be subject to the sign regulations contained in Livermore Development Code section 4.06.170 (sign standards for CNB) and the Citywide Design Standards Guidelines as it exists now or is amended in the future.

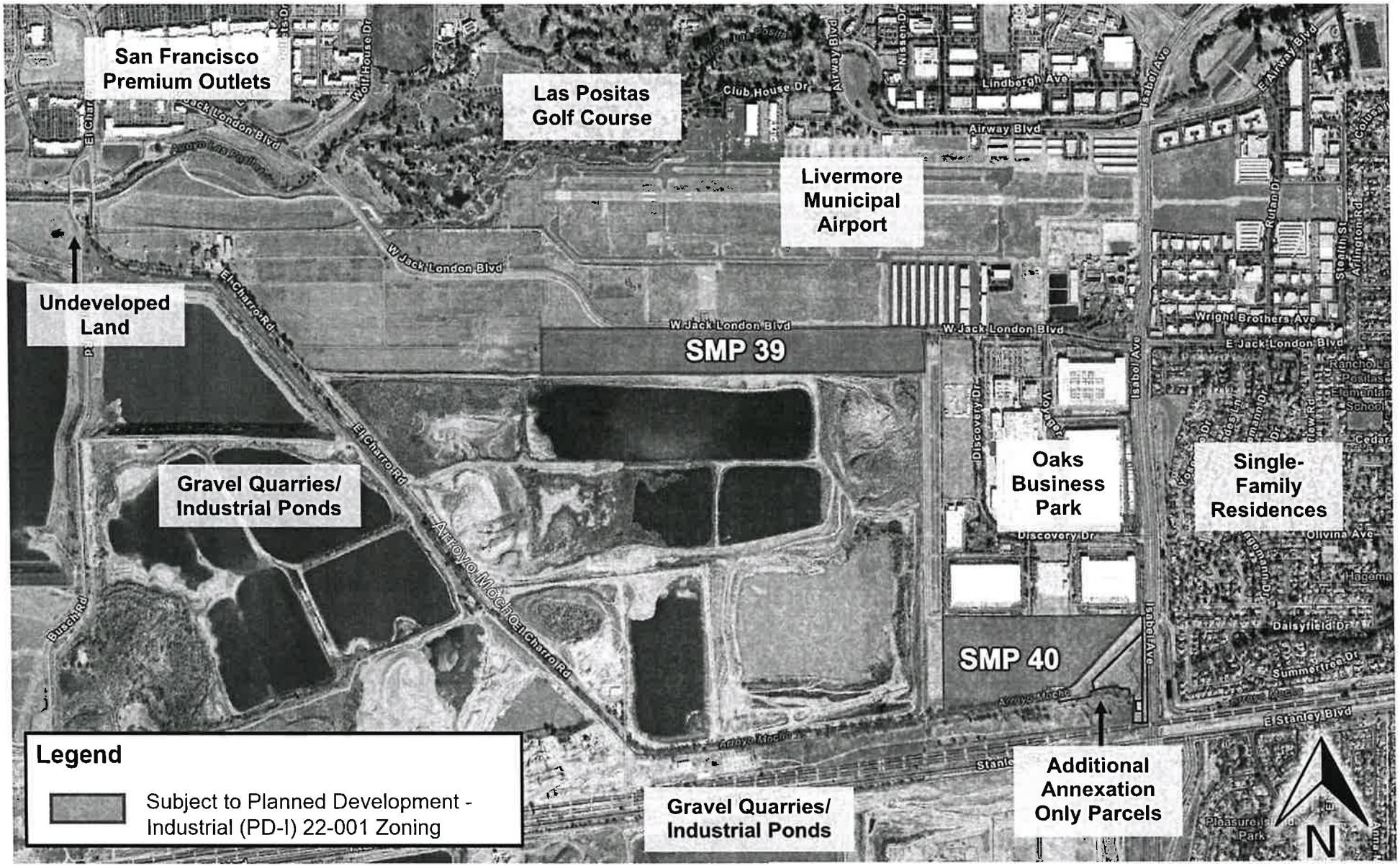
G. Other Required Standards for SMP 39 and 40:

1. Noise. No use shall be permitted which creates an ambient noise level greater than 75 decibels (dBA) beyond the boundaries of the site, nor greater than 60 decibels at the boundary of a Residential District.
   A. On SMP 39, semi-truck access to the site (arrivals and departures) shall be limited to 96 trips between the hours of 10:00 PM and 7:00 AM.
   B. On SMP 40, semi-truck access to the site (arrivals and departures) shall be limited to 40 trips between the hours of 10:00 PM and 7:00 AM
   C. Between the hours of 10:00 PM and 7:00 AM single-event noise levels (e.g., backup alarm, truck brakes, etc.) shall not exceed 55 dBA, measured at the property line of the nearest residential use.
2. Air Pollution. All uses shall comply with regulations of the San Francisco Bay Area Air Pollution Control District.
3. Vibration, Heat, Glare, Electrical Disturbance. No use shall be permitted which

creates noise, odors, vibrations, heat, glare, or electrical disturbances beyond the boundaries of the site. Lighting used to illuminate buildings, structures, uses, or parking and loading areas shall not be directed toward any public right-of-way.

4. Fire, Explosion. All uses shall provide adequate safety devices and adequate firefighting and fire suppression equipment to protect against fire, explosion, and other hazards.
5. Solid and Liquid Wastes. No solid or liquid waste discharges, other than permitted discharges into a public sewage disposal system, shall be permitted. The chemical composition and volume of industrial effluent discharged shall be subject to the wastewater permit requirements established by LMC Title 13, Division II. (Ord. 442 § 14.80).

Figure 1


San Francisco Premium Outlets
Las Positas Golf Course
Livermore Municipal Airport
Undeveloped Land
Gravel Quarries/ Industrial Ponds
SMP 39
SMP 40
Oaks Business Park
Single-Family Residences
Additional Annexation Only Parcels
Gravel Quarries/ Industrial Ponds
Legend
Subject to Planned Development - Industrial (PD-I) 22-001 Zoning
W Jack London Blvd
Airway Blvd
Lindergh Ave
Club House Dr
Wolf House Dr
Nissen Dr
Isabel Ave
E Airway Blvd
El Charro Rd
Arroyo Mocho
Discovery Dr
Wright Brothers Ave
E Jack London Blvd
Rancho Las Positas Elementary School
Olivina Ave
Hagema
Daisyfield Dr
Summerfred Dr
E Stanley Blvd
Buschi Rd
N

IN THE PLANNING COMMISSION OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION RECOMMENDING THAT THE CITY COUNCIL APPROVE GENERAL PLAN AMENDMENT (GPA) 21-001, ANNEXATION/PREZONING (APZ) 21-003, ZONING MAP AMENDMENT (ZMA) 21-002, PLANNED DEVELOPMENT-INDUSTRIAL (PD-I) 22-001, DEVELOPMENT CODE AMENDMENT (DCA) 21-005, VESTING TENTATIVE PARCEL MAP (SUB) 21-008, VESTING TENTATIVE TRACT MAP (SUB) 21-009, SITE PLAN DESIGN REVIEW (SPDR) 21-008, PRE-ANNEXATION AND DEVELOPMENT AGREEMENT (DA) 21-001, AND PRE-ANNEXATION AND DEVELOPMENT AGREEMENT (DA) 23-002 FOR THE SMP 39/SMP 40 PROJECT

The City received an application General Plan Amendment (GPA) 21-001, Annexation/Prezoning (APZ) 21-003, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, Site Plan Design Review (SPDR) 21-008, Pre-annexation and Development Agreement (DA) 21-001, and Pre-annexation and Development Agreement (DA) 23-002 for the SMP 39/SMP 40 Project ("Project") to develop approximately 1.51 million square feet of industrial development and associated parking, lighting, landscaping, and other improvements.

On March 5, 2024, the Planning commission held a duly noticed public hearing to consider the Project and staff recommendations, all public comments and testimony, and findings.

NOW, THEREFORE, BE IT RESOLVED, by the Planning Commission of the City of Livermore that prior to taking action on the Project, and at a properly noticed public meeting, the Planning Commission reviewed written and oral staff reports, conducted a public hearing on the Project and took testimony, and received into the record all pertinent documents related to the Project (collectively, the "Record Evidence"). The Planning Commission's determination is based on the Record Evidence, which is incorporated into this Resolution by reference.

BE IT FURTHER RESOLVED with respect to General Plan Amendment (GPA) 21-003 (attached hereto as Exhibit A) the Planning Commission of the City of Livermore finds based on the information presented:

1. The amendment is internally consistent with all other provisions of the General Plan.

   Response: The General Plan currently designates the SMP 39, SMP 40, and the Additional Annexation Only Parcels as Open Space/Sand and Gravel (OSP/S&G) and is adjacent to land designated by the General Plan as Low-Intensity Industrial (LII). The Project proposes to modify the General Plan designation for SMP 39 and SMP 40 to LII to permit light industrial development and the Additional Annexation Only Parcels to Parks, Trailways, and Recreation Areas (OSP). Development is not proposed on the Additional Annexation Only Parcels and the OSP designation is

consistent with the parcels' natural features and attributes, including their proximity to Arroyo Mocho. The change to a LII land use designation for the site supports and implements the General Plan and will be compatible with the existing and adjacent industrial uses in the Oaks Business Park and Livermore Municipal Airport, maximizing the use of existing public streets, services, and facilities. Therefore, the proposed changes are internally consistent with all other provisions of the General Plan.

2. The proposed amendment will not be detrimental to the public interest, health, safety, convenience, or welfare of the City.

   Response: The proposed General Plan Amendment will enable SMP 39 and SMP 40 to be developed with light industrial uses and achieve the General Plan Goals, Objectives, and Policies to focus light industrial uses around the Livermore Municipal Airport. In addition, the development will not include objectionable levels of noise, vibration, odors, glare, or hazard that would create a nuisance for surrounding uses. Planned Development – Industrial (PD-I) 22-001 zoning will implement the General Plan land use designation through use restrictions and development standards to ensure orderly and thoughtful development of the site with respect to the site's location and physical characteristics. Development is not proposed on the Additional Annexation Only Parcels. The Additional Annexation Only Parcels will be designated as OSP designation and rezoned to Open Space – Floodplain which is consistent with the parcels' natural features and attributes, including their proximity to Arroyo Mocho.

   In addition, the Project, including the necessary General Plan and Zoning amendments, was analyzed in conformance with the California Environmental Quality Act (CEQA) and found to have no adverse effect on the environment with mitigation incorporated, with the exception of converting agricultural land to non-agricultural uses as defined by the Alameda County Local Agency Formation Commission. However, the California Department of Conservation's Farmland Mapping and Monitoring Program does not classify the project site as Farmland. Therefore, the proposed amendment would not be detrimental to the public interest, health, safety, convenience, or welfare of the City.

3. The affected site is physically suitable in terms of design, location, shape, size, operating characteristics, and the provision of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment, and disposal, etc.), to ensure that the proposed or anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

   Response: Based on the plans and specifications provided by the Developer and reviewed by City staff, the SMP 39 and SMP 40 sites are physically suitable to

accommodate the industrial land use designation at the proposed intensity. In addition, the Project, including the necessary General Plan and Zoning Map Amendments, was analyzed in conformance with the California Environmental Quality Act (CEQA), which found the site was suitable in terms of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment and disposal, etc.). The proposed land use designation and the anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

BE IT FURTHER RESOLVED with respect to Annexation/Prezoning (APZ 21-003), Development Code Amendment (DCA) 21-005, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001 (attached hereto as Exhibits B and C) the Planning Commission of the City of Livermore finds based on the information presented:

1. The proposed amendment is consistent with the General Plan and any applicable Specific Plan.

   Response: The SMP 39 and SMP 40 properties will be prezoned to PD-I 22-001, which is consistent with the proposed General Plan land use designation of LII. The zone will be similar to the adjacent existing industrial uses and developed in compliance the PD-I 22-001 and Livermore Development Code standards. In addition, the Additional Annexation Only Parcels will be prezoned to OS-F zone, which is consistent with the proposed General Plan land use designation of OSP.

2. The proposed amendment will not be detrimental to the public interest, health, safety, convenience, or welfare of the City.

   Response: Based on staff analysis contained in the Planning Commission staff report and the SMP 39/SMP 40 EIR, there is no evidence that approval of the Zoning Map Amendment will be detrimental to the public interest, health, safety, convenience, or welfare of the City.

3. The proposed amendment is internally consistent with other applicable provisions of this Development Code.

   Response: The proposed Zoning Map Amendment would prezone SMP 39 and SMP 40 to PD-I 22-001 and prezone the Additional Annexation Only Parcels to OS-F. Prezoning is required prior to annexation of territory into the City. Therefore, the proposed amendment is consistent with all other applicable provisions of the Development Code.

4. The affected site is physically suitable in terms of design, location, shape, size, operating characteristics, and the provision of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm

drainage, wastewater collection, treatment, and disposal, etc.), to ensure that the requested zone designation and the proposed or anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

Response: Based on the plans and specifications provided by the Developer and reviewed by City staff, the SMP 39 and SMP 40 sites are physically suitable to accommodate the industrial land use designation at the proposed intensity. In addition, the Project, including the necessary General Plan and Zoning Map Amendments, was analyzed in conformance with the California Environmental Quality Act (CEQA), which found the site was suitable in terms of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment and disposal, etc.). The proposed land use designation and the anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

BE IT FURTHER RESOLVED with respect to the Vesting Tentative Parcel Map (SUB) 21-008 and Vesting Tentative Tract Map (SUB) 21-009 the Planning Commission of the City of Livermore finds based on the information presented:

1. The proposed map is consistent with the General Plan and any applicable specific plan, any policy or guideline implementing the General Plan (including the City's Design Standards and Guidelines), or other applicable provisions of this Development Code.

   Response: The Vesting Tentative Parcel Map and Vesting Tentative Tract Map were submitted with applications for a General Plan Amendment and Zoning Map Amendments (Annexation/Prezoning). Based on the approvals to change the General Plan land use designation to an industrial use and the proposed PD-I 22-001 zone, the proposed maps are consistent with the General Plan and the Development Code.

2. The site is physically suitable for the proposed type of development.

   Response: The development of approximately 1.51 million square feet of industrial development is consistent with the Low Intensity General Plan land uses, PD-I 22-001 zoning, and the Livermore Development Code, which confirms the proposed intensity and type of development are suitable for the site.

3. The design of the subdivision or the proposed improvements will not cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat. Notwithstanding the foregoing, the Commission or Council may approve a tentative map if an Environmental Impact Report was prepared with respect to the project and a statement of overriding considerations was made to the effect that specific economic, social, or other considerations make infeasible the

mitigation measures or project alternatives identified in the Environmental Impact Report.

Response: The project involves the development of two undeveloped sites with industrial uses. An Environmental Impact Report (EIR) was prepared for the project. The EIR finds that with mitigation measures (protocol surveys, state and federal agency coordination, and avoidance strategies for special status species), any potential impacts to fish or wildlife or their habitat will be reduced to less than significant.

4. The design of the subdivision or the type of improvements will not cause serious public health problems.

   Response: An EIR has been prepared for the project. The EIR finds that with mitigation measures, any potential impacts to public health will be reduced to less than significant.

5. The design of the subdivision or the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision (The Commission or Council may approve a tentative map if it finds that alternative easements for access will be provided, and that these will be substantially equivalent to ones previously acquired by the public. This Subparagraph shall apply only to easements of record or to easements established by judgment of a court of competent jurisdiction, and no authority is hereby granted to the Commission to determine that the public at large has acquired easements for access through or use of property within the proposed subdivision.)

   Response: There are no existing easements on SMP 39 or SMP 40. The Project includes an at-grade, paved trail within a 38.5-foot trail easement along the SMP 39 frontage on West Jack London Boulevard, consistent with the City's Active Transportation Plan. There is an access easement and public use easements on a portion of the Additional Annexation Only Parcels. However, this area will not be developed as part of the Project, with the exception of an at-grade trail along a portion of the Additional Annexation Only Parcels. The design of the subdivisions and the proposed development improvements avoids these easements and thus does not conflict with any public easements.

6. Any proposed phases and their proposed sequence of construction are identified on the submitted tentative map. The City may impose reasonable conditions relating to the filing of multiple final maps in conjunction with the approval of the tentative map (Section 66456.1).

   Response: The subdivision does not involve multiple phases.

BE IT FURTHER RESOLVED with respect to the Site Plan Design Review (SPDR) 21-008 the Planning Commission of the City of Livermore finds based on the information presented:

1. The proposed development will be allowed within the subject zone.

   Response: Based on the approval of the General Plan Amendment application to change the site to industrial use, in concert with prezoning the site to Planned Development – Industrial 22-001 zoning district, which permits light industrial uses and establishes appropriate development standards, the proposed development of industrial buildings is permitted within the subject zone.

2. Be designed such that:
   a. The project will not be detrimental to the public health, safety, or general welfare, and not detrimental to adjacent property;
   b. Architectural design and functional plan of the structure(s) and related improvements are of reasonable aesthetic quality and compatible with adjacent developments;
   c. Structure(s) and related improvements are suitable for the proposed use of the property and provide adequate consideration of the existing and contemplated uses of land and orderly development in the general area of the subject site; and
   d. The project's site plan and design is consistent with the City's Design Standards and Guidelines.

   Response: An Environmental Impact Report (EIR) was prepared for the project. The EIR does not find any significant impacts on the public health, safety, or general welfare to adjacent properties. Based on the review of the development plans for the Project, the design of the proposed development is compatible with adjacent developments and consistent with the Design Standards and Guidelines. No aspect of the proposed development will be detrimental to the existing uses of land and the orderly development in the general area.

3. Be designed to include the following criteria, as applicable:
   a. Compliant with this Chapter, this Development Code, Municipal Code Title 15 (Buildings and Construction), and all other applicable City regulations and policies;
   b. Efficient site layout and design;
   c. Compatible and appropriate scale to neighboring properties and developments;
   d. Efficient and safe public access (both pedestrian and vehicular) and parking;
   e. Appropriate and harmonious arrangement and relationship of proposed structures and signs to one another and to other development in the vicinity, based on good standards of design;
   f. Appropriate relationship to land use and development of adjacent properties, including topographic and other physical characteristics of the land;

g. Proper site utilization and the establishment of a physical and architectural relationship to existing and proposed structures on the site;
h. Compatible architectural style with the character of the surrounding area, both to avoid repetition of identical design where not desired, and to ensure compatibility in design where desired;
i. Harmonious relationship with existing and proposed developments and the avoidance of both excessive variety and monotonous repetition;
j. Compatible in color, material, and composition of the exterior elevations to neighboring visible structures;
k. Appropriate exterior lighting which provides for public safety and is not of a nature that will constitute a hazard or nuisance to adjacent properties;
l. Compatible in scale and aesthetic treatment of proposed structures with public areas;
m. Appropriate open space and use of water efficient landscaping; and
n. Consistent with the General Plan and any applicable Specific Plan.

Response: The Project is designed to be compatible and in scale with the existing surrounding developments. The Project is designed to provide adequate on-site improvements including parking, lighting and landscaping. Based on the design review of the project, as documented in the Planning Commission staff report, the Project meets all the design criteria identified above.

BE IT FURTHER RESOLVED with respect to the Pre-annexation and Development Agreement (DA) 21-001 and Pre-annexation and Development Agreement (DA) 23-002 (attached hereto as Exhibits D and E, respectively) the Planning Commission of the City of Livermore finds based on the information presented:

1. The Development Agreement provides benefit to the City.

   Response: The Development Agreements establish terms and obligations for public benefits, including the Applicant's financial contribution toward and construction of the off-site trail improvements and financial contribution to the City's Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001. For these reasons, the Development Agreements will provide benefit to the City.

2. The Development Agreement is consistent with the purpose, intent, goals, policies, programs, and land use designations of the General Plan, any applicable Specific Plan, and this Development Code.

   Response: The Development Agreements require the Applicant to provide a financial contribution to the City's Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001. This is consistent with the purpose, intent, goals, policies, and programs, of the General Plan. Specifically, this will implement policies and actions in the General Plan Economic Development element to encourage existing businesses to remain and grow in

Livermore, and attract a range of new businesses to locate in Livermore. The Development Agreements also include financial contribution toward and construction of the off-site trail improvements identified in the City's Active Transportation Plan. This is consistent with the purpose, intent, goals, policies, and programs of the General Plan and the Active Transportation Plan to improve bicycle and pedestrian circulation and connectivity.

3. The Development Agreement complies with the requirements of Government Code Sections 65864 through 65869.5

   Response: The proposed development complies with the requirements of Government Code Section 65864 through 65869.5 by securing the terms and timing for off-site improvements and amenities for the benefit of the broader Livermore community.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore has considered the Record Evidence and adopted a resolution recommending the City Council certify an Environmental Impact Report.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore has considered the findings set forth above and adopts these findings as part of this resolution. Based upon the Planning Commission's independent review of the Record Evidence and considerations, the Planning Commission recommends that the City Council approve General Plan Amendment (GPA) 21-001, Annexation/Prezoning (APZ) 21-003, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008, subject to the Conditions of Approval attached hereto as Exhibit F, for the SMP 39/SMP 40 Project.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore has considered the findings set forth above and adopts these findings as part of this resolution. Based upon the Planning Commission's independent review of the Record Evidence and considerations, the Planning Commission recommends that the City Council approve Pre-annexation and Development Agreement (DA) 21-001, and Pre-annexation and Development Agreement (DA) 23-002 in substantial conformance with Exhibits D and E, subject to the Conditions of Approval attached hereto as Exhibit F, for the SMP 39/SMP 40 Project.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore recommends the City Council authorize submission of an application to the Alameda County Local Agency Formation Commission to initiate a sphere of influence modification and annexation proceedings for the Subject Property.

BE IT FURTHER RESOLVED, the Planning Commission of the City of Livermore recommends that the City Council direct the Planning Manager to file a Notice of Determination with the Alameda County Clerk, if the project is approved.

The documents that constitute the record of proceedings upon which this decision is based can be found in the Community Development Department, 1052 S. Livermore Avenue, in Livermore, California.
On the motion by Commissioner Leary, seconded by Commissioner Fintschenko, the foregoing Resolution was passed and adopted at the Planning Commission meeting of March 5, 2024, by the following vote:

AYES: ANDERSON, DUNBAR, FINTSCHENKO, KRONZAK, LEARY.
NOES: NONE.
ABSENT: NONE.

Jacob Anderson, Chairperson

Steve Riley

by Steve Riley, Acting Planning Manager
Secretary to the Planning Commission

Exhibit A – General Plan Amendment (GPA) 21-001
Exhibit B – Zoning Map Amendment (ZMA) 21-002
Exhibit C – Draft Planned Development-Industrial 22-001 Zoning
Exhibit D – Draft Development Agreement (DA) 23-002
Exhibit E – Draft Development Agreement (DA) 21-001
Exhibit F – Conditions of Approval

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

AN ORDINANCE APPROVING A DEVELOPMENT AGREEMENT WITH LIVERMORE INDUSTRIAL PARTNERS 40, LLC AND SMP-40, LLC FOR THE SMP 39/SMP 40 PROJECT

(Development Agreement 23-002)

THE CITY COUNCIL OF THE CITY OF LIVERMORE DOES ORDAIN AS FOLLOWS:

Section 1. *Authority*. Pursuant to Government Code Section 65864 et seq., the City Council considers that certain document under City Application No. Development Agreement 23-002 and entitled "Pre-Annexation and Development Agreement (DA 23-002) [Surface Mining Permit (SMP) 39/40 Project – SMP 40 Property] ("Development Agreement"). The Development Agreement is attached hereto as Exhibit A.

Section 2. *Recommendation*. The Planning Commission held a duly noticed public hearing on March 5, 2024, to consider an ordinance approving the Development Agreement and by its Resolution No. 03-24, attached hereto as Exhibit B, recommended that the City Council adopt the ordinance and approve the Development Agreement.

Section 3. *Environmental Review.* The City Council considered the environmental review and certified the SMP 39/SMP 40 Final Environmental Impact Report by Resolution No. ____.

Section 4. *Consistency*. Development Agreement 23-002 is consistent with the General Plan and the Livermore Development Code Chapter 9.04.

Section 5. *Approval*. The City Council has considered the findings made by the Planning Commission for adoption of the Development Agreement in Planning Commission Resolution No. 03-24, and hereby adopts the same findings by this reference and incorporates them as part of this resolution, and based on the City Council's own independent review and considerations, hereby adopts this ordinance and approves Development Agreement 23-002.

Section 6. *Signing Authority*. The City Manager is hereby authorized to sign the Development Agreement, attached hereto as Exhibit A, on behalf of the City of Livermore.

Section 7. *Publication and Effective Date.* This ordinance or a comprehensive summary thereof shall be published once in a newspaper of general circulation of the City of Livermore within 15 days after its adoption and shall take effect and be in force thirty days from and after its adoption.

Section 8. *Filing.* Planning Manager is directed to file a Notice of Determination for the SMP 39/SMP 40 Project Environmental Impact Report with the Alameda County Clerk.

Section 9. *Recording.* The City Clerk is directed to record the Development Agreement within 10 days after the effective date of the Development Agreement.

Section 10. *Documents.* The documents that constitute the record of proceedings upon which this decision is based on can be found in the City Clerk's Office, 1052 S. Livermore Avenue, Livermore, California.

Section 11. *Severability.* If any part of this ordinance is declared unconstitutional or invalid by a court, such unconstitutionality or invalidity shall not affect any remaining parts.

The foregoing ordinance was introduced at the meeting of the City Council of the City of Livermore held on March 25, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

The ordinance was adopted at the regular meeting of the City Council held on _____, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

_____
Mayor, City of Livermore

ATTEST:

_____
Deborah L. Elam
Acting City Clerk

APPROVED AS TO FORM:

/s/ Kimberly D. Cilley
Kimberly D. Cilley
Senior Assistant City Attorney

Exhibit A – Development Agreement 23-002
Exhibit B – Planning Commission Resolution 03-24

RECORDING REQUESTED BY AND
WHEN RECORDED MAIL TO:

City Clerk
City of Livermore
1052 South Livermore Avenue
Livermore, CA 94550

(Space Above This Line Reserved for Recorder's Use Only)

PRE-ANNEXATION AND DEVELOPMENT AGREEMENT

BY AND BETWEEN

THE CITY OF LIVERMORE

AND

LIVERMORE INDUSTRIAL PARTNERS 40, LLC; AND SMP-40, LLC

PRE-ANNEXATION AND DEVELOPMENT AGREEMENT (DA 23-002)
[SURFACE MINING PERMIT (SMP) 39/40 PROJECT – SMP 40 PROPERTY]

This Pre-annexation and Development Agreement ("Agreement") is entered into on _____, 2024 between the City of Livermore, a municipal corporation ("City"), Livermore Industrial Partners 40, LLC ("Developer") and SMP-40, LLC ("Seller"). The City, Developer, and Seller are sometimes referred to below each individually as a "Party" and collectively as the "Parties."

RECITALS

This Agreement is based on the following facts:

A. The City has the authority to enter into a development agreement under Government Code section 65864 *et seq.* ("Development Agreement Statutes") and Chapter 9.04 of the Livermore Development Code to vest certain rights to the Developer and to meet certain public purposes of the local government.

B. SMP-39, LLC, an affiliate of Seller, owns approximately +/- 51.9 acres located on Jack London Boulevard, west of Oaks Business Park and south of Livermore Municipal Airport (commonly referred to as "SMP 39"). Seller owns approximately +/- 41 acres (commonly referred to as "SMP 40" or, for purposes of this Agreement, "SMP 40 Property"), which is the subject of this Agreement. The aforementioned SMP numbers reference the Surface Mining Permit (SMP) numbers applicable to each site. The Surface Mining Permits for each of the sites were approved by Alameda County in 2004 to allow for the extraction of sand and gravel (i.e., aggregate) within the sites; however, aggregate mining has not occurred within either of the sites.

C. Four additional parcels that total approximately +/- 12.9 acres are located east of SMP 40 and are included in the overall project area (as set forth in more detail in Recital F and referred to as the "Additional Annexation Only Parcels"). The City has chosen to include the parcels in the proposed annexation area for purposes of efficiency and to create logical boundaries.

D. The SMP 40 Property consists of one parcel (Assessor Parcel Number (APN) 904-0010-002-02) and is generally located south of Oaks Business Park, at the south end of Atlantis Street and Challenger Street. It is situated in Alameda County and is within the City of Livermore's Sphere of Influence ("SOI") and the City of Livermore's South Livermore Urban Growth Boundary ("UGB"). The SMP 40 Property is zoned Agriculture by Alameda County with a County General Plan designation of Industrial. The SMP 40 Property has a City of Livermore General Plan designation of Open Space/Sand and Gravel.

The SMP 40 Property is described more specifically in the attached **Exhibit A**. The SMP 40 Property does not include property located within SMP 39 or the Additional Annexation Only

Parcels, as described in Recitals E and F below. Development of the SMP 40 Property is described in Recitals G and H, below, and set forth in more detail in **Exhibit B** (SMP 40 Development Description) and **Exhibit C** (Site Plan for the SMP 40 Property). Developer is in contract to purchase SMP 40 Property from Seller, and under that contract has the primary rights and obligations regarding application for and funding the Entitlements, described below in Recital I, for the SMP 40 Property as set forth in this Agreement. Developer is required to annex the SMP 40 Property into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

E. SMP-39, LLC, an affiliate of Seller, owns certain real property consisting of one parcel (APN 904-0003-001-04) and is situated in Alameda County, within the City of Pleasanton's SOI and the City of Livermore's South Livermore UGB ("SMP 39"). SMP 39 is zoned Agriculture by Alameda County and has a County General Plan designation of Industrial. SMP 39 has a City of Livermore General Plan designation of Open Space/Sand and Gravel. The Developer is required to change the SOI for SMP 39 from the City of Pleasanton to the City of Livermore and to annex SMP 39 into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

F. Four additional parcels (APNs 904-0010-002-03, -5, -7, and -8) located immediately east of SMP 40 are within unincorporated Alameda County, the City of Livermore SOI, and the City of Livermore South Livermore UGB ("Additional Annexation Only Parcels"). APN 904-0010-002-03 is an approximately 0.20-acre parcel owned by the Pacific Gas and Electric Company (PG&E) and is developed with existing PG&E infrastructure. APN 904-0010-002-05 is an approximately 5.76-acre parcel owned by the Zone 7 Water Agency and serves as a flood control channel. APN 904-0010-002-07 is an approximately 1.57-acre parcel owned by the California Department of Transportation (Caltrans) and is currently undeveloped. APN 904-0010-002-08 is an approximately 5.46-acre parcel owned by the City of Livermore and is currently undeveloped with scattered trees throughout the parcel. The City of Livermore General Plan designates the Additional Annexation Only Parcels as Open Space/Sand and Gravel. The Additional Annexation Only Parcels are also within the East County Area Plan of the Alameda County General Plan, which designates the parcels as Industrial. The parcels are zoned Agriculture by Alameda County. The Developer is required to annex the Additional Annexation Only Parcels into the City to facilitate the SMP 39/SMP 40 Project, defined below in Recital G.

G. Due to their interrelated nature, activities involving SMP 39, SMP 40, and the Additional Annexation Only Parcels (together, the "SMP 39/SMP 40 Project") are considered in a single Environmental Impact Report ("EIR") (SCH #2023010091) for purposes of the City's environmental review under the California Environmental Quality Act ("CEQA"). The SMP 39/SMP 40 Project evaluated in the EIR includes a SOI amendment for SMP 39 and a General Plan Amendment, Pre-zoning and Annexation, Development Code Amendment/ Zoning Map Amendment/ Planned Development, Vesting Tentative Subdivision Maps, Pre-annexation Agreements, and Development Agreements for SMP 39 and SMP 40. A Site Plan Design Review entitlement is also included for SMP 40. The SMP 39/SMP 40 Project evaluated in the EIR also includes annexation of the Additional Annexation Only Parcels.

H. SMP 39 and SMP 40 shall be developed with light industrial development uses consistent with the City's *Low-Intensity Industrial* General Plan designation, including research

and development, professional and administrative offices, experimental and testing laboratories, manufacturing of electronic and other high-end complex products, a limited amount of warehouse and distribution, and similar uses as stated in PD-I 22-001, the zoning for the property (**Exhibit D**). The SMP 39/SMP 40 Project includes (i) on SMP 39, approximately six light industrial buildings consisting of up to 755,500 square feet (sf) of development and, (ii) on SMP 40, two light industrial buildings consisting of up to 759,275 sf of development. **Exhibit C** shows the proposed site plan for the SMP 40 Development. Developer and City intend that separate Pre-annexation and Development Agreements will be entered into for SMP 39 and SMP 40, respectively, in order to segregate the rights and obligations related to each property. This Agreement, as reflected herein, addresses the SMP 40 Property and no other property.

I. The Developer has applied for the following entitlements ("Entitlements") for the SMP 40 Property from the City of Livermore as required under the Livermore Development Code, to be vested in accordance with this Agreement pending annexation of the SMP 40 Property into the City of Livermore:

- General Plan Amendment (GPA 21-001) to change the City of Livermore designation of SMP 39 and SMP 40 from *Open Space/Sand and Gravel* (OSP/S&G) to *Low-Intensity Industrial* (LII) and to change the City of Livermore designation of the Additional Annexation Only Parcels from *Open Space/Sand and Gravel* (OSP/S&G) to *Parks, Trailways, Recreation Areas* (OSP) (the "General Plan Amendment" or "GPA");

- Pre-zoning of SMP 39 and SMP 40 (DCA 21-005, ZMA 21-002 and PD-I 22-001) by (i) amending the City's zoning map to rezone SMP 39 and SMP 40 to the *Planned Development - Industrial* (PD-I) 22-001 zoning district, which includes the "Planned Development-Industrial 22-001 Zoning Standards" described more fully in attached **Exhibit D**; and (ii) pre-zoning the Additional Annexation Only Parcels to *Open Space Flood Plain* (the "Prezoning"). The Prezoning shall become effective with respect to SMP 39, SMP 40, and the Additional Annexation Only Parcels upon their annexation to the City in accordance with California Government Code section 65859;

- SOI Amendment and Annexation (APZ 21-003) authorizing submittal of an application to the Alameda County Local Agency Formation Commission ("LAFCo") to (i) include SMP 39 within the City of Livermore's SOI (and remove SMP 39 from the City of Pleasanton's SOI); and (ii) annex SMP 39, SMP 40, and the Additional Annexation Only Parcels from Alameda County into the City;

- Vesting Tentative Parcel Map 11219 (SUB 21-009) authorizing the creation of two development parcels for the SMP 40 Property, (the "Tentative Map");

- Site Plan Design Review (SPDR 21-008) certifying compliance with the "Applicable Rules" (meaning the rules, regulations, and official policies of the City, including but not limited to the City's General Plan and Livermore

Development Code, as they existed on the Effective Date, except as otherwise amended by the approved Entitlements or this Agreement) and the Planned Development Standards with respect to the development proposed on the SMP 40 Property (the "SPDR Approval"); and

- This Pre-annexation and Development Agreement (DA 23-002) to vest certain rights to the Developer and to provide specific public benefits that meet certain public purposes of the local government.

In addition to the above listed Entitlements, an EIR (SCH #2023010091) for the SMP 39/SMP 40 Project has been prepared in accordance with CEQA to evaluate potential impacts to the environment of the SMP 39/SMP 40 Project, including the Entitlements.

J. The City Council finds that the SMP 39/SMP 40 Project is in the public interest; will establish land uses compatible with the physical nature of the SMP 40 Property and the surrounding area; will generate light industrial development and activity to meet local and regional goals; and will provide certain substantial public benefits and help attain certain other public objectives including, without limitation: (i) including construction of and a $750,000 financial contribution toward off-site trail improvements, creating connections to the City's existing trail networks as identified in the *Active Transportation Plan* ("ATP"); and (ii) a commitment to the funding of $100,000, payable over a two-year term in increments of $50,000 per year, to facilitate uses that support an innovation-driven economy, generate high wage jobs, or generate substantial sales tax revenues as determined by the Director of Innovation and Economic Development. Items (i) through (ii) above, and as described more fully in Section 4, are collectively referred to as the "Public Benefits".

K. This Agreement will promote and encourage the SMP 40 Development by providing the Developer and its creditors with a greater degree of certainty of the Developer's ability to expeditiously and economically complete the development effort for the SMP 40 Property, and the Parties agree that the consideration to be received by the City pursuant to this Agreement and the rights secured to the Developer hereunder constitute sufficient consideration to support the covenants and agreements of the City and the Developer. By entering into this Agreement, the City desires to allow the Developer to design, apply for, and if approved to develop the SMP 40 Property pursuant to this Agreement, the land use ordinances, rules, regulations, and policies applicable on the "Effective Date," as defined in Section 2, and to vest in Developer, upon annexation, to the fullest extent possible under the law, development entitlements in order to complete the SMP 40 Development, consistent with Section 5 of this Agreement.

L. The SMP 40 Development has been extensively reviewed and considered by the City and its officers, agencies, and departments. The proposed uses have been found to accommodate the City's recommendations and suggestions in order to protect the public's interest and to enhance the desirability, from the public's perspective, of the SMP 40 Development.

M. The City conducted duly noticed public hearings on this Agreement pursuant to Government Code section 65867 and Livermore Development Code sections 9.04.040 and

9.04.050 and found that the provisions of this Agreement and its purposes are consistent with the objectives, policies, general land uses, and programs specified in the City's General Plan and Livermore Development Code.

N. This Agreement was adopted by ordinance of the City Council on _____, 2024 and approved upon a second reading on _____, 2024 after notice and public hearings before the Planning Commission and City Council, and after City Council certification of an EIR in accordance with CEQA, Public Resources Code section 21000 *et seq*.

NOW, THEREFORE, the City and Developer hereby agree that the aforementioned recitals are true and correct and incorporated by reference as fully set forth below, and further agree as follows:

1. The Property. The SMP 40 Property is described in **Exhibit A**, attached hereto. The SMP 40 Development includes two light industrial buildings consisting of up to 759,275 sf of development. A comprehensive description of the SMP 40 Development and a proposed site plan is in attached **Exhibit B** (SMP 40 Development Description) and **Exhibit C** (Site Plan for the SMP 40 Property).

2. Effective Date. The effective date of this Agreement (the "Effective Date") is the later of (a) thirty (30) days after the date the Ordinance approving this Agreement is adopted by the City Council and attested by the City Clerk, (b) if a referendum petition is timely and duly circulated, filed and qualified by the Elections Official, the date the election results on the ballot measure by City voters approving this Agreement are certified by the City Council in the manner provided by the Elections Code, or (c) the date the sphere of influence amendment and annexation proceedings are complete. This Agreement shall be executed by the City within ten (10) days after the Effective Date and recorded as provided in Government Code Section 65868.5.

3. Term. The term of this Agreement is ten (10) years ("Term"), beginning on the Effective Date as defined in Section 2 of this Agreement. The Agreement may be extended as provided for in the Development Agreement Statutes and the Livermore Development Code, subject to the written consent of the City and Developer. The terms of the Entitlements shall be automatically extended such that the Entitlements remain in effect for any extended Term.

   Following the earlier of the expiration of the Term, the completion of development of the SMP 39/SMP 40 Project and all of Developer's obligations in connection therewith, or the failure of either SMP 39,SMP 40 or the Additional Annexation Only Parcels to be annexed into the City of Livermore in accordance with Section 5(g) of this Agreement, this Agreement shall be terminated and shall have no further force and effect, subject, however to the provisions of Sections 10, 13 and 17.

4. Developer Obligations; Schedule of Performance. The Developer shall comply with the requirements set forth in the Schedule of Performance and tasks listed below. The Schedule of Performance is subject to revision from time-to-time as mutually agreed upon in writing between the City and the Developer, which shall be accomplished

through a separate document and without the need to amend this Agreement. The City Manager shall have the authority to approve on behalf of the City any revision to a date in the Schedule of Performance that he or she deems appropriate, provided that the revision extends the performance deadline for a time period no longer than one year. Developer shall comply with the following Schedule of Performance:

a. Developer shall initiate timely applications for the SOI amendment for SMP 39 and the annexation for SMP 39, SMP 40, and the Additional Annexation Only Parcels, which shall be reviewed by the appropriate decision-making bodies for each parcel, which may include the City of Pleasanton, Livermore City Council and LAFCo.

b. Developer shall pay a $100,000 cash contribution to the City of Livermore Office of Innovation and Economic Development Department for marketing SMP 39 for the desired land uses identified in PD-I 22-001.

    i. Prior to issuance of the first building permit for the SMP 40 Property, the Developer shall pay an initial $50,000 cash contribution to the City of Livermore Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001.

    ii. Developer shall pay a second $50,000 contribution to the City of Livermore Office of Innovation and Economic Development Department no later than one (1) year following the receipt of the initial $50,000 contribution, to be used toward further marketing SMP 39 for the desired land uses identified in PD-I 22-001.

c. In addition to the on-site trail required by the Project, as set forth in the Conditions of Approval, Developer shall construct an off-site grade-separated overcrossing (bridge) of Isabel Avenue/State Route 84 north of the existing railroad tracks and Stanley Boulevard as a required public benefit ("the Trail Overcrossing"). Developer shall also construct trail connections from the terminus of the bridge to the existing off-site Arroyo Mocho trail east of Isabel Avenue and from the terminus of the bridge west of Isabel Avenue, north to the existing trail along the Zone 7 property (north of the Arroyo Mocho Channel) ("the Trail Connections"). The Trail Overcrossing shall have a span of approximately 190-210 feet and shall run parallel with the existing railroad tracks. The materials shall consist of a fabricated truss and a weathered steel span bridge with concrete flooring. The Trail Overcrossing shall be supported by two cast-in-place concrete abutments which are supported by cast-in-drilled-hole concrete piles. An approach retaining wall shall be required on the east end. The Trail Overcrossing shall be cambered so it will drain from the middle to each end and then drain to the edges and connect to Caltrans storm drains. A site plan and preliminary design details are provided in **Exhibit E**. Final designs shall be conditioned to meet the requirements of applicable permitting agencies. Permits shall be required from the City of Livermore and Caltrans. In addition, an encroachment permit will be required from Caltrans. The Trail Overcrossing and Trail Connections shall be designed as described above or with similar design features as approved by the Community

Development Director. The Trail Overcrossing and Trail Connection design shall include lighting, cameras, and/or other safety and security measures as required by the City's Chief of Police and City Engineer.

i. As part of Final Map submittal for the SMP 40 Property, the Developer shall pay for and submit design plans, Engineer's cost estimates, and project bids to the City for review and approval for the Trail Overcrossing and the Trail Connections. Developer shall work to secure and provide a competitive cost for the bridge, consistent with commercially reasonable costs and construction practices. The Trail Overcrossing and Trail Connections design shall be approved by the City before the Developer can apply for any permits related to the Trail Overcrossing and Trail Connections. Developer may submit the Final Map to the City without the Trail Overcrossing and Trail Connections details if the City Engineer determines, in his or her discretion, that the delay in the preparation of said details was due solely to delay by a public agency other than the City.

ii. The Developer's monetary contribution towards the costs of the Trail Overcrossing and Trail Connections shall equal Seven-Hundred-Fifty-Thousand Dollars ($750,000.00) (the "Developer Obligation"). The $750,000 Developer Obligation is in addition to the design and permitting costs the Developer is responsible for, as set forth in the Agreement. As part of Final Map approval, Developer shall enter into a Subdivision Improvement Agreement which shall include the Developer Obligation.

iii. Prior to Final Map approval, the Developer shall enter into a Community Facilities District to fund long-term maintenance and replacement of the on-site trail improvements and associated landscaping and retaining walls and the off-site trail improvements located within the Zone 7 trail easement associated landscaping and retaining walls.

iv. Prior to issuance of Certificate of Occupancy for Building 2 on the SMP 40 Property, the Developer shall pay for and obtain all necessary permits and approvals from all applicable government agencies, including but not limited to the City and Caltrans and complete all on- and off-site trail improvements including the Trail Overcrossing and the Trail Connections, subject to acceptance of the public improvements by the Livermore City Council.

v. If Developer fails to complete the Trail Overcrossing and Trail Connections prior to the issuance of the Certificate of Occupancy of Building 2 on the SMP 40 Property, Developer shall provide an irrevocable letter of credit from J.P. Morgan Chase, Wells Fargo Bank, or Bank of America in the amount of the remaining estimated cost of construction of the Trail Overcrossing and the Trail Connections, plus a 25 percent contingency added to the remaining estimated cost. The irrevocable letter of credit shall provide the City with sole and unilateral release of funds and shall be in a form approved by the City Attorney. The remaining estimated cost shall be determined by an updated Engineer's cost estimated provided and approved by the City Engineer prior

to the issuance of Certificate of Occupancy for Building 2. Unless the City Engineer determines in his or her discretion that a delay by a public agency other than the City was the sole reason for Developer's failure to complete to the Trail Overcrossing or Trail Connection, the Developer Obligation to the Trail Overcrossing and Trail Connections shall increase every six months following issuance of the Certificate of Occupancy of Building 2 on the SMP 40 Property until the Trail Overcrossing and the Trail Connections have been completed, including acceptance of the public improvements by the Livermore City Council as follows: $25,000 every six months during year one, $50,000 every six months during year two, and $75,000 every six months during year three. The Developer shall remain responsible for paying for and obtain all necessary permits and approvals from all applicable government agencies as noted in Section 4(c) and completing all on- and off-site trail improvements including the Trail Overcrossing and the Trail Connections, subject to acceptance of the public improvements by the Livermore City Council. The obligation to provide an irrevocable letter of credit shall replace the bond requirements for the off-site trail improvements in the Subdivision Improvement Agreement.

vi. In accordance with Chapter 12.30, Traffic Impact Fee on Development Section 12.30.080, Credit and Reimbursement, the Developer shall be eligible for Traffic Impact Fee (TIF) credits to construct the Trail Overcrossing and Trail Connection costs, less the $750,000 Developer Obligation. As described further in attached **Exhibit F**, City shall provide Developer a TIF credit of the SMP 40 Project's Traffic Impact Fees (the "Impact Fee Credit") for the identified Engineer's cost estimate (or up to 10 percent over this estimate as specified above). If the construction cost estimate exceeds 10 percent of the Engineer's cost estimate, the Developer shall pay the remaining Trail Overcrossing and Trail Connections cost over the Engineers estimate. The Impact Fee Credit shall be credited against the TIF that are collected at the time each building permit is paid, and on a permit-by-permit basis as Developer's obligations to pay such impact fees accrue until the last SMP 40 Project building permit is issued. Notwithstanding anything to the contrary in this Agreement, if the Engineer's cost estimate has not been prepared and/or approved prior to when payment of TIF is due, Developer shall pay the applicable TIF when due and City shall provide Developer a cash reimbursement in the dollar amount of TIF Credit within thirty (30) business days after City Engineer's review and approval of the Engineer's cost estimate, such approval not being unreasonably withheld, conditioned, or delayed.

5. Vested Development Rights. Subject to annexation into the City and the terms of this Agreement, the SMP 40 Development shall vest in accordance with this Agreement, and the Developer has the right to develop and use the SMP 40 Property in accordance with:

   a. The City's General Plan, the Livermore Development Code, and the Entitlements in effect on the Effective Date;

b. All other City policies, ordinances, resolutions, rules, regulations, and standards applicable to development or use of the SMP 40 Property on the Effective Date, except that Developer shall:

(1) Pay the processing and development impact fees applicable City-wide that are in effect at the time the fees are paid. Payment for said fees shall be made prior to issuance of any building permits.

(2) Comply with Building Code requirements in effect on a City-wide basis at time of Building permit submittal;

(3) Comply with construction and technical design standards or specifications for public improvements that are applicable City-wide at time of Building permit submittal;

(4) Comply with changes in City laws, regulations, plans, or policies applicable City-wide, the terms of which are found by the City Council, based on substantial evidence, to be necessary to protect members of the public from a condition dangerous to public health or safety;

(5) Comply with a change in City law, regulations, plans, or policies that is:

i. Specifically mandated by state or federal law, or by any regional governmental agency that has legal authority over the City under state law or a joint powers agreement; or

ii. A result of or in response to state or federal law, or regional agency action, made necessary in order for the City to avoid losing or not receiving substantial funding or other substantial public benefits or facilities that would be available to the City only if it makes such a change; or

iii. Specifically mandated by, or necessary for compliance with or implementation of, the terms of any permit, entitlement, or other authorization necessary for the development of the Property that is issued or granted to the City, County, and/or Developer by any federal, state or regional agency;

(6) Following any subsequent environmental review, comply with required mitigation measures.

c. In the event that Developer applies for any subsequent entitlements, subsequent entitlements shall be subject to the City's ordinances, rules, regulations and policies in effect on the date of submittal of the subsequent entitlements.

d. If there is any inconsistency between this Development Agreement and a permit or entitlement issued for the SMP 40 Property, this Development Agreement shall control.

e. Developer acknowledges that execution of this Agreement by the City does not constitute approval of any required permits, applications, or allocations, and in no way limits the discretion of the City in the permit, allocation, and approval process in accordance with the limitations set forth herein.

f. Upon annexation of SMP 39 and 40, Developer agrees that all mining permits previously granted by Alameda County on the SMP 39 and SMP 40 properties shall be forfeited, and no mining operations shall occur on the SMP 39 Property or the SMP 40 Property. No later than 60 days from the date LAFCo approves annexation of the SMP 40 Property, subject to any extension granted by the City, Developer shall coordinate with Alameda County to complete any final actions required to remove the mining permits and all associated permissions related to mining operations from the SMP 39 and SMP 40 properties.

g. The Parties agree that the obligations set forth in this Agreement are conditioned upon the passing of a City Council Resolution authorizing submittal of an application to LAFCo for SOI amendment and Annexation, the filing of an application with LAFCo to amend the SOI for SMP 39, annex SMP 39, SMP 40 and the Additional Annexation Only Parcels, requesting waiver of notice, hearing and protest from LAFCo, subject to LAFCo approval. Furthermore, the Parties also agree that the obligations set forth in this Agreement are conditioned upon the approved and finalized SOI amendment and annexation of the SMP 39 and SMP 40 Properties and the Additional Annexation Only Parcels into the City of Livermore. Upon approval of the SMP 39/SMP 40 Project by the City, the City agrees to act in good faith, in collaboration with the Developer, to support and timely process the SOI amendment and annexation application with LAFCo. The Developer shall be responsible for all costs associated with the SOI amendment and annexation, including but not limited to preparation of the LAFCo application, LAFCo application submittal fees, and any other City-related annexation fees. The SOI amendment and annexation of SMP 39, SMP 40, and the Additional Annexation Only Parcels shall be completed no later than 18 months from the Effective Date of this Agreement, unless extended by written agreement of the Parties. If the SOI amendment and annexation proceedings are not completed within this time period, subject to any agreed upon extension, this Agreement shall be terminated and shall have no further force and effect, subject however to the provisions of Sections 10, 13 and 17.

h. Developer shall not dispute or challenge the validity of the Pre-annexation and Development Agreement for SMP 39. Any legal challenge to the validity or enforceability of the Pre-annexation and Development Agreement for SMP 39 shall constitute a legal challenge to the Pre-annexation and Development Agreement for SMP 40 and the SMP 39/SMP 40 Project. In the event of a valid legal challenge, this Agreement shall be terminated after all appeals have been

exhausted before a final court of judgment, or issuance of a final court order directed to the City to set aside, withdraw or abrogate the City's approval of this Agreement or the Pre-annexation and Development Agreement for SMP 39.

7. Periodic Review. Review of this Agreement shall be made annually, consistent with Government Code section 65865.1 and Livermore Development Code Chapter 9.04.

8. Amendments. The Agreement may be amended in writing by the Parties, by mutual agreement, consistent with the procedures set forth in the Development Agreement Statutes and the Livermore Development Code, as they are amended from time-to-time.

9. Force Majeure. The Term of this Agreement shall be extended by, and the performance by any Parties of their obligations hereunder (other than for payment of money) shall be excused during, any period of "Force Majeure" as hereinafter defined. "Force Majeure" means a delay caused by any labor disputes or strikes, labor or material shortages or embargoes, pandemic, fire, unusual delay in transportation, earthquakes, floods, tornadoes or extreme wind or other adverse weather conditions not reasonably foreseeable by Developer, or material adverse underground conditions not reasonably foreseeable by Developer.

10. Remedies for Default. If a Party is in default under this Agreement, another Party may pursue one or more of the following courses of action after providing 30 days' written notice to the purportedly defaulting Party (or such longer period as may be required to cure the default, so long as such Party commences the cure within such 30-day period and diligently pursues the cure to completion): (a) waive the default; (b) in the City's case, pursue administrative remedies, including denial or otherwise withholding issuance of building permits, certificates of occupancy, or other approvals; (c) pursue judicial remedies; or (d) terminate this Agreement. Any purported default by a Party hereunder shall be subject to, and tolled by, any event of Force Majeure that prevents such Party from performing the act necessary to avoid or cure such purported default. Any such tolling shall end at the termination of the event of Force Majeure.

11. Termination. This Agreement shall terminate upon the earlier of (i) expiration of the Term (ii) in the event that SMP 39, SMP 40, or the Additional Annexation Only Parcels are not annexed into the City in accordance with Section 5(g) of this Agreement (iii) when the SMP 39/SMP 40 Project has been completed and all of Developer's obligations have been fully satisfied as reasonably determined by the City, or (iv) after all appeals have been exhausted before a final court of judgment, or issuance of a final court order directed to the City to set aside, withdraw or abrogate the City's approval of this Agreement or any material part thereof, or the Pre-annexation and Development Agreement for SMP 39 or any material part thereof. Upon termination of this Agreement as to the SMP 39/SMP 40 Project, at the request of Developer, the City shall record a Notice of Termination for each affected parcel in a form satisfactory to the City Attorney in the Office of the Alameda County Recorder. In the event this Agreement is terminated, neither party shall have any further rights or obligations hereunder except for those obligations of Developer set forth in Section 10 (Remedies for Default), Section 13 (No Damages Relief) and Section 17 (Legal Action; Attorneys' Fees).

12. Mortgagee Protection.

a. This Agreement shall not prevent or limit Developer in any manner, at Developer's sole discretion, from encumbering the Property or any portion thereof or any improvement thereon by any mortgage, deed of trust, or other security device securing financing with respect to the Property ("Mortgage"). This Agreement shall be superior and senior to any lien placed upon the Property or any portion thereof after the date of recording this Agreement, including the lien of any Mortgage. Notwithstanding the foregoing, no breach hereof shall defeat, render invalid, diminish, or impair the lien of any Mortgage made in good faith and for value, but all of the terms and conditions contained in this Agreement shall be binding upon and effective against and inure to the benefit of any person or entity, including any deed of trust beneficiary or mortgagee ("Mortgagee") who acquires title to the Property, or any portion thereof, by foreclosure, trustee's sale, deed in lieu of foreclosure, or otherwise.

b. *Liability for Past Defaults*. Any Mortgagee, including the successful bidder at a foreclosure sale, who takes title and possession of the Property, or any portion thereof, pursuant to such foreclosure, shall take the Property, or portion thereof, subject to the provisions of this Agreement; provided, however, in no event shall such Mortgagee be liable for any defaults or monetary obligations of Developer arising prior to acquisition of title to the Property by such Mortgagee. Notwithstanding the preceding sentence, in no event shall any such Mortgagee or its successors or assigns be entitled to a building permit, final inspection, or occupancy certificate until all fees and other monetary obligations due under this Agreement have been paid to the City and any other existing defaults under this Agreement that are reasonably subject to cure are cured.

c. *Notice of Default to Mortgagee; Right of Mortgagee to Cure*. If City receives a notice from a Mortgagee requesting a copy of any Notice of Default given to Developer hereunder and specifying the address for service thereof, then City shall deliver to such Mortgagee, concurrently with service thereon to Developer, any notice given to Developer with respect to any claim by City that Developer has committed a default. If the City makes a determination of noncompliance hereunder, City shall likewise serve notice of such noncompliance on such Mortgagee concurrently with service thereof on Developer. Each Mortgagee shall have the right (but not the obligation) during the same period available to Developer to cure or remedy, or to commence to cure or remedy, the event of default claimed or the areas of noncompliance set forth in City's notice.

13. No Damages Relief. The Parties acknowledge that the City would not have entered into this Agreement were it exposed to damages claims from Developer for any breach thereof. As such, the Parties agree that in no event shall Developer be entitled to recover damages against City for breach of this Agreement. To the extent permitted by law, specific enforcement of this Agreement, including specific performance of Developer's payment obligations set forth in Sections 4(b) and 4(c) and the City's TIF credit obligations set forth in Exhibit F, is the proper and desirable remedy.

14. Recordation: Binding Effect. This Agreement shall be recorded in the office of the Alameda County Recorder and shall be binding upon and inure to the benefit of any successors in interest to the Parties. The Parties acknowledge that, as of the date of preparing this Agreement, the Property is owned in fee by Seller and that Seller shall have all rights and obligations of "Developer" under this Agreement.

15. Release Upon Transfer. Upon the sale, transfer, or assignment, in whole or in part, of Developer's right and interest to all or any portion of the Property, Developer shall be released from its obligations hereunder with respect to the portion so conveyed, provided: (i) Developer (or transferee) was not in default of this Agreement at the time of conveyance, (ii) Developer provided to City prior written notice of such transfer, and (iii) with respect to sale or transfer of any lot that has not been fully improved, the transferee executes and delivers to City a written assumption agreement in which: (a) the name and address of the transferee is set forth, and (b) the transferee expressly assumes the obligations of Developer under this Agreement as to the portion of the Property conveyed. Failure to deliver a written assumption agreement hereunder shall not negate, modify, or otherwise affect the liability of any transferee pursuant to the provisions of this Agreement.

16. Timing of Development.

    a. Because the California Supreme Court held in *Pardee Construction Co. v. City of Camarillo*, 37 Cal.3d 465 (1984), that the failure of the parties therein to provide for the timing of development resulted in a later adopted initiative restricting the timing of development to prevail over the parties' agreement, it is the Parties' intent to avoid that result by acknowledging, that unless provided for in this Agreement, Developer shall have the right (without obligation) to develop the Property in such order and at such rate and at such times as Developer deems appropriate within the exercise of its subjective business judgment, subject to the terms, requirements and conditions of the Entitlements and this Agreement.

    b. Developer will use its best efforts, in accordance with its own business judgment and taking into consideration market conditions and other economic factors influencing Developer's business decision, to commence or to continue development, and to develop the Project in a regular, progressive, and timely manner in accordance with the terms, requirements and conditions of the Entitlements and this Agreement.

17. Legal Action; Attorneys' Fees. If the City chooses to defend any third party claim or suit challenging any action taken by the City with regard to this Agreement or any procedure or aspect of the City's approval of the development of the SMP 40 Development, including the environmental review process, the Developer in its capacity as either Developer or owner of the Property agrees to reimburse the City for the City's reasonable attorneys' fees, expert witness fees, and related costs as the City may incur in connection with its retention of outside counsel, and for any award of court costs or fees against the City. The City has the right to choose and retain such legal counsel as the City deems appropriate. After expenses reach $100,000, and each $100,000 thereafter, the Parties

will confer to review the status of the litigation and their options for proceeding or settling, and they will negotiate in good faith about how the expenses will be allocated. The Developer, in its capacity as the Developer or owner of the Property, shall have no obligation to reimburse the City for costs incurred after the date on which the Developer or owner of the Property give the City written notice of their decision to settle a case, even if the City does not agree to the settlement. If legal action is brought by one of the Parties to enforce a provision of this Agreement, the prevailing party is entitled to reasonable attorneys' fees, expert witness fees, and court costs.

18. Notices. The address of each party for the purpose of all notices permitted or required by this Agreement is as follows:

To City:	City of Livermore 1052 South Livermore Avenue Livermore, CA 94550 Attention: Community Development Director and Ashley Vera, Senior Planner
With a copy to:	City Attorney City of Livermore 1052 South Livermore Avenue Livermore, CA 94550
To Developer:	Overton Moore Properties 19700 South Vermont Avenue, Suite 101 Torrance, CA 90502 Attention: Timur Tecimer
With a copy to:	Cox, Castle & Nicholson LLP 50 California Street, Suite 3200 San Francisco, CA 94111 Attention: Christian Cebrian
To Seller:	SMP-40, LLC 1459 18th St #317 San Francisco, CA 94107 Attention: Jennifer Jimenez-Cruz
With a copy to:	Allen Matkins Three Embarcadero Center 12th Floor San Francisco, CA 94111 Attention: Marshall Wallace

The written address of each Party set forth above may be changed by written notice given not less than five (5) days prior to the date such change is to be in effect. All notices under this Agreement shall be in writing, shall be properly addressed, and shall be sent by personal delivery, United States mail (registered, certified, or Express Mail, return receipt requested and postage prepaid), or by overnight courier delivery service. All such notices shall be considered delivered: (i) if personally delivered, on the date of delivery; (ii) if sent by United States mail in the manner prescribed above, on the date shown on the return receipt for acceptance or rejection; or (iii) if sent by overnight courier delivery service, on the date of delivery or attempted delivery as shown by the written delivery record of such service.

19. Severability; Choice of Law If any term, provision, condition, or covenant of this Agreement, or the application thereof to any Party or circumstances, shall to any extent be held invalid or unenforceable, the remainder of the instrument, or the application of such term, provision, condition, or covenant, or the application of such term, provision, condition, or covenant to persons or circumstances other than those as to whom or which it is held invalid or unenforceable, shall not be affected thereby and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law. This Agreement shall be governed by the laws of the State of California.

20. Covenants Run with the Land. All of the terms, provisions, covenants, conditions, rights, powers, duties and obligations contained in this Agreement shall be binding upon the parties and their respective heirs, successors and assigns acquiring any portion of the Property and shall inure to the benefit of the parties and their respective heirs, successors and assigns.

21. No Third Party Beneficiaries. This Agreement is entered only for the benefit of the Parties executing this Agreement, and their successors in interest. This Agreement is not for the benefit of any other individual, entity or person. Nothing herein shall be construed to create any right of any third party to enforce this Agreement or to seek any benefit therefrom.

22. Time Is of the Essence. Time is of the essence for each provision of this Agreement for which time is an element.

23. Certificate of Compliance. Any Party may, at any time, request that the City indicate in writing: (i) whether this Agreement is in full force and effect; (ii) whether this Agreement has been amended or modified, and if so amended, the nature of any such amendments; or (iii) whether to the best of City's knowledge the requesting Party is in default in the performance of any of its obligations under this Agreement, and if in default, the nature of any such default. City shall endeavor in good faith to respond to any such request within thirty (30) days following the receipt thereof. The Parties shall be entitled to one certificate of compliance per year without any fee being assessed by the City. For any additional certificates of compliance requested in a single year, the City may charge the requesting party a reasonable fee related to the actual cost to prepare the certificate.

24. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which constitute one and the same instrument.

[Signatures on following page]

IN WITNESS WHEREOF, the Parties have signed this Pre-annexation and Development Agreement on the dates indicated below.

DEVELOPER

LIVERMORE INDUSTRIAL PARTNERS 40, LLC

By: _____

Date: 3.19.24 Title: manager

SELLER

SMP-40, LLC

By: _____

Date: _____ Title: _____

CITY OF LIVERMORE

By: _____

Date: _____ Title: _____

Attest:

_____

City Clerk

Approved to as Form:

_____

Assistant/City Attorney

IN WITNESS WHEREOF, the Parties have signed this Pre-annexation and Development Agreement on the dates indicated below.

DEVELOPER

LIVERMORE INDUSTRIAL PARTNERS 40, LLC

By: _____

Date: _____ Title: _____

SELLER

SMP-40, LLC

By: _____

Date: 3/19/24 Title: CEO

CITY OF LIVERMORE

By: _____

Date: _____ Title: _____

Attest:

_____

City Clerk

Approved to as Form:

_____

Assistant/City Attorney

Exhibits:

A	**SMP 40 Property Description**
B	**SMP 40 Development Description**
C	**Site Plan for SMP 40 Property**
D	**Planned Development-Industrial (PD-I) 22-001 Zoning Standards**
E	**Trail Overcrossing and Trail Connections Site Plan and Preliminary Design Details**
F	**Trail Overcrossing and Trail Connections Credits**

EXHIBIT A

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE UNINCORPORATED AREA IN THE COUNTY OF ALAMEDA, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

LAND DESCRIPTION OF REAL PROPERTY SITUATE IN THE UNINCORPORATED AREA OF COUNTY OF ALAMEDA, AND STATE OF CALIFORNIA; AND BEING A PORTION OF PARCEL 1 DESCRIBED IN THE QUITCLAIM DEED TO SMP-40, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY RECORDED ON OCTOBER 15, 2018 UNDER DOCUMENT NUMBER 2018-200199, OFFICIAL RECORDS OF SAID COUNTY, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST NORTHEASTERLY CORNER OF SAID PARCEL 1; THENCE ALONG THE GENERALLY EASTERLY LINE OF SAID PARCEL THE FOLLOWING SIX (6) COURSES:

1) SOUTH 43°34'49" WEST 122.15 FEET;
2) SOUTH 45°46'50" WEST 867.93 FEET;
3) SOUTH 44°11'58" EAST 4.92 FEET;
4) SOUTH 45°46'50" WEST 131.51 FEET;
5) SOUTH 68°51'35" WEST 26.89 FEET; AND
6) SOUTH 66°23'54" WEST 68.62 FEET;

THENCE ACROSS SAID PARCEL 1 THE FOLLOWING TWENTY-FIVE (25) COURSES:

1) NORTH 79°43'36" WEST 133.99 FEET;
2) SOUTH 87°47'59" WEST 169.88 FEET;
3) SOUTH 30°22'01" WEST 134.90 FEET;
4) NORTH 78°13'02" WEST 61.26 FEET;
5) SOUTH 89°02'56" WEST 59.76 FEET;
6) SOUTH 76°41'58" WEST 38.45 FEET;
7) SOUTH 85°37'00" WEST 88.93 FEET;
8) NORTH 89°20'02" WEST 51.57 FEET;
9) SOUTH 72°51'21" WEST 36.16 FEET;
10) SOUTH 82°16'37" WEST 78.80 FEET;
11) SOUTH 64°37'46" WEST 61.50 FEET;
12) SOUTH 78°31'36" WEST 81.76 FEET;
13) SOUTH 83°24' 14" WEST 81.60 FEET;
14) SOUTH 72°01'56" WEST 47.59 FEET;
15) NORTH 81°21 '57" WEST 78.32 FEET;
16) SOUTH 66°04'08" WEST 52.31 FEET;
17) NORTH 73°49'03" WEST 61.50 FEET;
18) SOUTH 65°34'35" WEST 70.95 FEET;
19) NORTH 78°45'27" WEST 62.83 FEET;
20) SOUTH 74°17'49" WEST 20.74 FEET;
21) SOUTH 36°43'43" WEST 70.68 FEET;
22) NORTH 89°03'53" WEST 34.19 FEET;
23) NORTH 00°56'07" EAST 72.40 FEET;
24) NORTHWESTERLY ALONG A NON-TANGENT CURVE TO THE RIGHT, WHICH A RADIAL BEARS NORTH 40°08'24" EAST TO THE RADIUS POINT, HAVING A RADIUS OF 53.00 FEET, A CENTRAL ANGLE OF 50°47'43" AND AN ARC LENGTH OF 46.99 FEET; AND
25) NORTH 00°56'07" EAST 997.87 FEET TO THE NORTHERLY LINE OF SAID PARCEL 1;

THENCE ALONG LAST SAID LINE SOUTH 89°25'04" EAST 2335.28 FEET TO THE POINT OF BEGINNING.

SAID DESCRIPTION IS PURSUANT TO THE CERTIFICATE OF COMPLIANCE AND LOT LINE ADJUSTMENT PLN2022-00260 RECORDED MAY 3, 2023 AS INSTRUMENT NO. 2023050039, AND PERFECTED BY THE GRANT DEED RECORDED MAY 24, 2023 AS INSTRUMENT NO. 2023059060 OF OFFICIAL RECORDS.

SMP 40 Development Description

Assessor Parcel Number 904-10-2-2 is also known as SMP 40 ("SMP 40 Property"). The aforementioned SMP number references the Surface Mining Permit (SMP) numbers applicable to the site. The Surface Mining Permit for the SMP 40 Property was approved by Alameda County in 2004 to allow for the extraction of sand and gravel (i.e., aggregate) within the site; however, aggregate mining has not occurred within the SMP 40 Property. The SMP 40 Property is approximately 41 acres and is located within unincorporated Alameda County, the City of Livermore Sphere of Influence (SOI), and the City of Livermore South Livermore Urban Growth Boundary (UGB). The Property is zoned Agriculture by Alameda County with a County General Plan designation of Industrial. The SMP 40 Property has a City of Livermore General Plan designation of Open Space/Sand and Gravel.

Surrounding existing uses include the Oaks Business Park to the north; single-family residences to the east, across Isabel Avenue/SR 84; the Arroyo Mocho, open fields, railroad tracks, and gravel quarries associated with mining operations to the south, across Stanley Boulevard; and vacant land, gravel quarries, and industrial ponds associated with mining operations to the west.

Developer shall construct two light industrial buildings on the SMP 40 Property totaling up to 759,275 square feet (sf) of new building area and associated internal roadways, parking, landscaping, utilities, on- and off-site trail improvements, and other improvements ("SMP 40 Development"). The approximately 470,530-sf Building 1 shall be located on the western portion of the SMP 40 Property and include a total of 68 loading dock doors along the western and eastern sides of the building (34 on each side). The approximately 288,750-sf Building 2 shall be located on the eastern portion of the SMP 40 Property and include a total of 62 loading dock doors along the northern and southern sides of the building (34 on the north and 28 on the south). A total of 742 vehicle parking stalls and 90 trailer parking stalls shall be provided at the SMP 40 Property. Each building shall have a maximum height of 50 feet or 55 feet with a Conditional Use Permit.

The SMP 40 Development shall comply with the development requirements including land use, building and landscape setbacks, height, lot coverage, parking, and other required standards as set forth in the Planned Development - Industrial 22-001 (PD-I 22-001) zone. Access to the SMP 40 Property shall be provided through new internal roadway connections to Atlantis Street and Challenger Street to the north, which currently serve the existing Oaks Business Park. The new roadway connections shall be located between Buildings 1 and 2 and shall provide access to the internal drive aisles around each building.

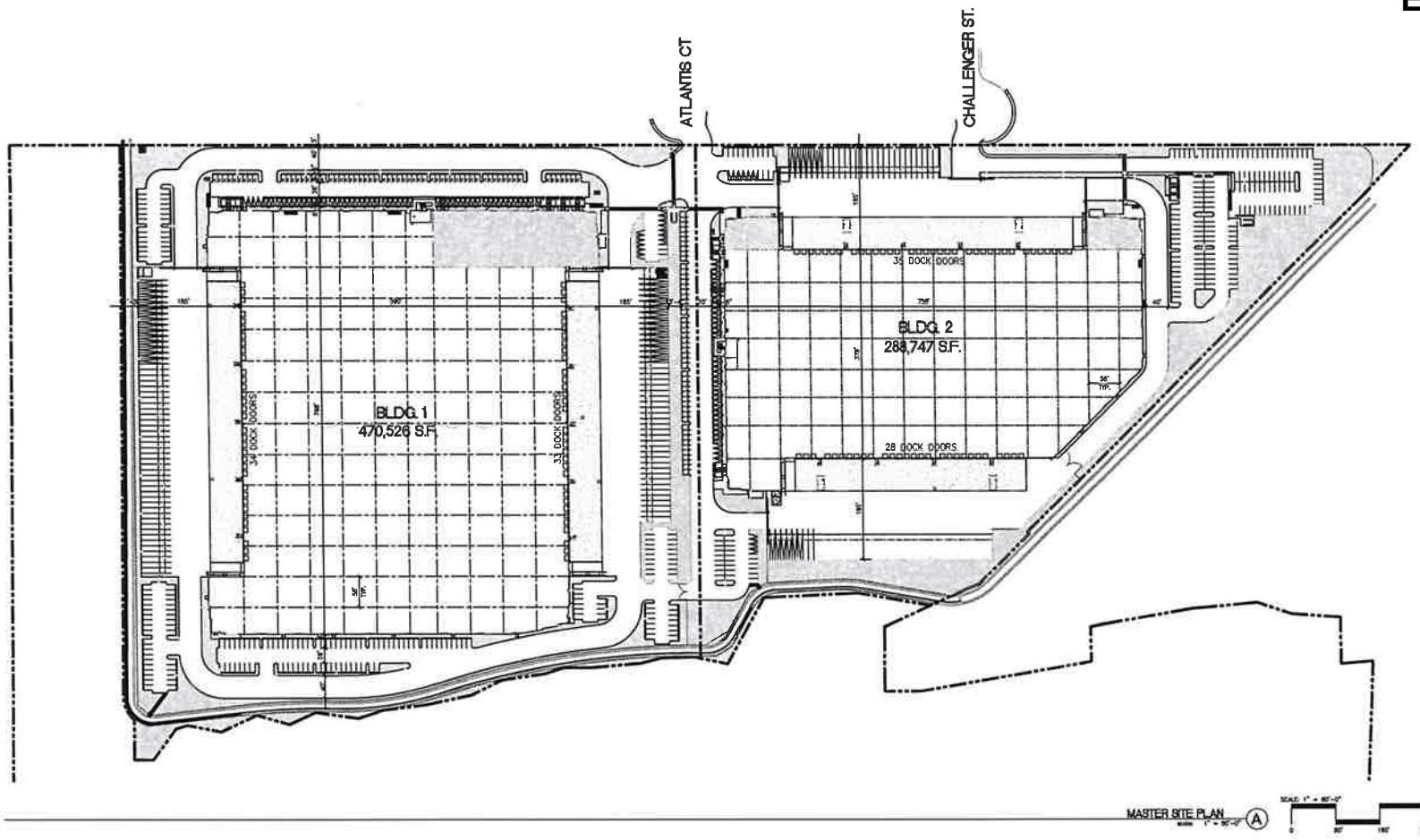
The SMP 40 Development includes a paved at-grade, on-site trail along the boundaries of the SMP 40 Property, consistent with the City's Active Transportation Plan. Specifically, the on-site trail shall extend from the northeastern corner of the site, along the SMP 40 Property's eastern, southern, and western boundaries, before connecting to the existing off-site trail at the northwestern corner of SMP 40 Property, which extends along the west side of the Oaks Business Park to the north and connects to West Jack London Boulevard. The portion of the on-

site trail located along the SMP 40 Property's eastern and southern boundaries shall be located within a Zone 7 easement north of the Arroyo Mocho.

In addition to the on-site trail required on the SMP 40 Property, an off-site grade-separated overcrossing (bridge) of Isabel Avenue/State Route 84 north of the existing railroad tracks and Stanley Boulevard is a required public benefit ("the Trail Overcrossing"). The SMP 40 Development shall include construction of trail connections from the terminus of the bridge to the existing off-site Arroyo Mocho trail east of Isabel Avenue and to the future on-site trail along the SMP 40 Property frontage to the west of Isabel Avenue ("the Trail Connections"). The Trail Overcrossing shall have a span of approximately 190-210 feet and shall run parallel with the existing railroad tracks. The materials shall consist of a fabricated truss and a weathered steel span bridge with concrete flooring. The Trail Overcrossing shall be supported by two cast-in-place concrete abutments which are supported by cast-in-drilled-hole concrete piles. An approach retaining wall shall be required on the east end. The Trail Overcrossing shall be cambered so it will drain from the middle to each end and then will drain to the edges and connect to Caltrans storm drains. A site plan and preliminary design details are provided in **Exhibit E**. Final designs shall be conditioned to meet the requirements of applicable permitting agencies. Permits shall be required from the City of Livermore and Caltrans. In addition, an encroachment permit will be required from Caltrans. The Trail Overcrossing and Trail Connections shall be designed as described above or with similar design features as approved by the Community Development Director. The Trail Overcrossing and Trail Connections design shall include lighting, cameras, and/or other safety and security measures as required by the City's Chief of Police and City Engineer.

EXHIBIT C

EXHIBIT A



NEW METAL FENCE AND GATE

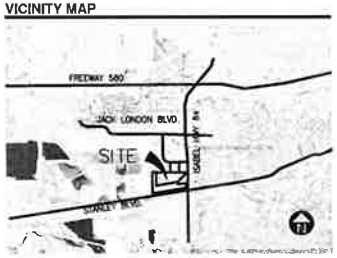
EXISTING CHAIN LINK FENCE

NEW CHAIN LINK FENCE AND GATE

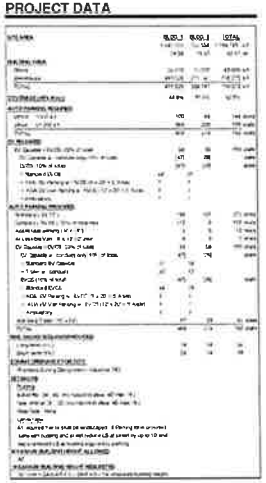
SITE PLAN GENERAL NOTES

- CONCRETE PAVING, SEE "C" DRWGS. FOR THICKNESS
- COMPACT PARKING STALL 9' X 18' (14' WITH 2' OVERHANG)
- STANDARD PARKING STALL 9' X 18' (16' WITH 2' OVERHANG)
- ACCESSIBLE PARKING STALL (9' X 18') ACCESSIBLE AISLE SEE DETAIL 11/AD.1
- STANDARD PARKING STALL W/ EVCS INSTALLED
- STANDARD PARKING STALL W/ CONDUITS ONLY
- ACCESSIBLE PARKING (VAN) STALL (9' X 18') + 8' W/ ACCESSIBLE AISLE
- TRAILER PARKING (10' X 53')
- TRAILER PARKING W/ CONDUITS ONLY
- LANDSCAPED AREA
- NON-ACCESSIBLE PATH
- PATH OF TRAVEL, MINIMUM WIDTH TO BE 4', SLOPE NOT TO EXCEED 5% IN THE DIRECTION OF TRAVEL AND CROSS SLOPE NOT TO EXCEED 2%. SEE CIVIL FOR GRADING PLAN

VICINITY MAP



PROJECT DATA



HPA architecture

hpa, inc.
620 grand ave, suite 302
oakland, ca
94610
tel: 949-862-2113
e-mail: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK BUILDING 1

LIVERMORE, CA

Consultants:

Kier&Wright
4STEL
ACIES
ACIES
ACIES
Green Design

Title MASTER SITE PLAN

Project Number 11177
Drawn by DJ
Date 11/21/2023
Revision

Sheet

A1.0

2662

PLANNED DEVELOPMENT STANDARDS SMP 39 & SMP 40

Planned Development – Industrial (PD-I) 22-001

Reviewed by Planning Commission: March 5, 2024
Approved by City Council: March 25, 2024

Purpose: The purpose of establishing this Planned Development-Industrial (PD-I 22-001) District (District) is to regulate the development of ± 51.9 acres of land located on Jack London Boulevard, west of Oaks Business Park and south of Livermore Municipal Airport (commonly referred to as "SMP 39") and ± 41 acres of land located south of Oaks Business Park, at the south end of Atlantis Street and Challenger Street (commonly referred to as "SMP 40"), as shown in the attached figure (Figure 1). The intent of this District is to accomplish the following:

1. PD-I 22-001 is intended to provide an environment exclusively for and conducive to the development and protection of modern professional and administrative facilities, research institutions, manufacturing operations, experimental and testing laboratory and related uses, any similar employment generating high-end industrial users, all of a non-nuisance type.
2. The District is intended to provide for an aesthetically attractive working environment with park- and/or campus-like grounds, attractive buildings, employee parking, and other amenities appropriate to a mix of office and industrial uses.
3. The District is intended to establish development standards and regulations consistent with the intent of the Low Intensity Industrial General Plan designation.
4. Any land use that utilizes hazardous materials shall be subject to the regulations of Section 6.02.040, Hazardous Materials, of the Livermore Development Code, as it exists now or is amended in the future.
5. Development shall be in conformance with the requirements of the Livermore Development Code as it exists now or is amended in the future, except as modified by the following regulations.
6. Development is subject to the Citywide Design Standards and Guidelines as they exist now or may be amended in the future unless otherwise modified by the following regulations.

A. Principal Permitted Uses:

The following are the principal permitted uses for SMP 39[1] and SMP 40:

1. Research and development facilities
2. Professional and administrative offices
3. Experimental and testing laboratories
4. Manufacture of electric and electronic circuits, instruments, and devices
5. Manufacture of pharmaceutical products or life science facility, not exceeding Biosafety Level 2[2]
6. Medical diagnostic and manufacturing facilities
7. Manufacturing and assembly of motor vehicle parts, including but not limited to dashboards, parts, component systems, electrical connectors, sensors, panels, airbags, seats, tires, windows etc. for all vehicles and similar equipment (e.g. automobiles, motorcycle, construction equipment, farm equipment, buses).
8. Similar uses as determined by the Community Development Director to be of the same general character as the listed uses.

Additional Permitted Uses for SMP 39 only:

1. Restaurants, except fast food

Additional Permitted Uses for SMP 40 only:

1. Warehousing and distribution facilities, dry or refrigerated
2. Warehousing and distribution facility – E-commerce/Third Party Logistics (3PL)
3. Manufacturing, assembly, processing, storage, or packaging of products from previously prepared materials such as, but not limited to, cloth, plastic, paper, leather, and precious or semi-precious metals or stones, but not including the following:
   A. Operations such as saw and planing mills, any manufacturing uses involving primary production of wood, metal, or chemical products from raw materials, and similar uses
   B. Vehicle dismantling yards, scrap and waste yards
   C. Manufacturing, processing, storing, or packaging chemicals, petroleum,

[1] SMP 39 and SMP 40 are located with the Airport Influence Area and the Livermore Airport Protection Area. Per the Alameda County Airport Land Use Compatibility Plan, the majority of SMP 39 is located in Safety Zone 6, with a portion of the site located in Safey Zone 3. The principal permitted land uses are intended to be located in buildings that are only within the portion of SMP 39 that is located in Safety Zone 6.

[2] Per the Centers for Disease Control and Prevention, Biosafety Level 2 laboratories involve work that poses moderate hazards to laboratory workers and the environment. Biosafety Level 2 laboratories require safety protocols to contain microbes and biological agents.

heavy agricultural products or other hazardous materials.

4. Sale of heavy equipment and construction related vehicles and equipment, including associated repair, service, and parts distribution facilities. Showrooms related to this use may be a conditionally permitted ancillary use.
5. Similar uses as determined by the Community Development Director to be of the same general character as the listed uses.

B. Conditional Uses for SMP 39 and 40:

1. Public and quasi-public uses.
2. Manufacture of pharmaceutical products or life science facility, not exceeding Biosafety Level 3[3]
3. Similar uses as determined by the Planning Commission to be of the same general character as the listed uses.

Conditional Uses for SMP 39 only:

1. Fast-food businesses, banks, personal services, or goods required for the convenience and support of occupants of uses in the surrounding district(s).
2. Warehouse and distribution facilities, including E-commerce/Third Party Logistics (3PL) uses, with the condition that these uses may only occupy up to 20 percent of the total buildable site area.
3. Sale of heavy equipment and construction related vehicles and equipment, including associated repair, service, and parts distribution facilities, provided they are manufactured and/or sold on-site. Showrooms related to this use may be a conditionally permitted ancillary use.
4. Similar uses as determined by the Planning Commission to be of the same general character as the listed uses.

C. Accessory Uses Permitted on SMP 39 and 40:

1. Signs subject to the requirements established by the Livermore Development Code, as well as the Citywide Design Standards and Guidelines, as it exists now or is amended in the future.
2. Accessory uses and buildings customarily appurtenant to a permitted use.
3. Living quarters determined by the Community Development Director to be necessary for surveillance purposes.
4. Fuel stations subject to the requirements of Section 6.03.160, Vehicle Services,

[3] Per the Centers for Disease Control and Prevention, laboratories designated Biosafety Level 3 involve work that poses a safety hazard greater than Biosafety Level 2 laboratories, defined above. Biosafety Level 3 laboratories require additional safety protocols beyond those required for Biosafety Level 2 laboratories to contain microbes and biological agents.

of the Livermore Development Code, as it exists now or is amended in the future.

D. Special Development Requirements for SMP 39 and 40:

1. Uses shall be designed and integrated into the site in a manner that maintains and is complementary to the corporate and professional character of the nearby Oaks Business Park.
2. Outdoor service and storage yards shall be screened from public view consistent with Livermore Development Code Section 6.03.100, Outdoor Storage, as it exists today or is amended in the future.
3. For SMP 40 only: Commercial/Industrial buildings shall be located a distance of at least 500 feet from Isabel Avenue.

E. Site Development Regulations for SMP 39 and 40:

The following minimum requirements shall be observed, except where increased for conditional uses:

1. Lot Area: Twenty thousand square feet
2. Lot Width: One hundred feet
3. Setbacks: Setback requirements are established below. Buildings shall not be permitted within required setbacks.

A. SMP 39

1) Front or Street Side: 40-feet on West Jack London Boulevard, and 30-feet on frontage roads and interior streets, except as required by subsection E.4. All required setbacks adjacent to streets shall be landscaped, except for driveways, sidewalks, and trails that are found to be necessary for the efficient use of the property. Where a building front is visible from the street, a minimum five-foot wide landscaped strip abutting the foundation shall be included, allowing for necessary entrances.

2) Rear and Side: None.

B. SMP 40

1) Front or Street Side: 500-feet from Isabel Avenue, and 30-feet on frontage roads and interior streets, except as required by subsection E.4. All required setbacks adjacent to streets shall be landscaped, except for driveways and sidewalks that are found to be necessary for the efficient use of the property. Where a building front is visible from the street, a minimum five-foot wide landscaped strip abutting the foundation shall be included, allowing for necessary entrances.

2) Rear and Side: None, except for a 20-foot setback from the top of the Arroyo Mocho bank on SMP 40 which should be

determined from a 2.5:1 slope projection from the toe of channel/mining pit to the top, as required in the Environmental Impact Report for the project.

4. Height Regulations: The height of all on-site structures, including roof-top mechanical equipment, is limited to 50 feet or the height permitted by the Federal Aviation Administration (FAA) review under FAA regulations – Part 77, whichever is more restrictive. Upon providing a minimum 40-foot setback from street rights-of-way, a Conditional Use Permit may be requested to increase height to a maximum of 55 feet, or the height permitted under FAA regulations – Part 77, whichever is more restrictive. The height of pole-and building-mounted lights may be approved up to 28 feet by an administrative site plan and design review, if found necessary for the health and safety of a site designed for truck or other large vehicle maneuvering and documented by a light study to not cause glare off-site.
5. Lot Coverage: The building coverage maximum shall be 45 percent.

F. Signs

1. Industrial Uses. Signs for industrial uses shall be subject to the sign regulations contained in Livermore Development Code section 4.06.230 (sign standards for I-1, I-2 and I-3) and the Citywide Design Standards Guidelines as it exists now or is amended in the future.
2. Commercial Uses. Signs for commercial uses shall be subject to the sign regulations contained in Livermore Development Code section 4.06.170 (sign standards for CNB) and the Citywide Design Standards Guidelines as it exists now or is amended in the future.

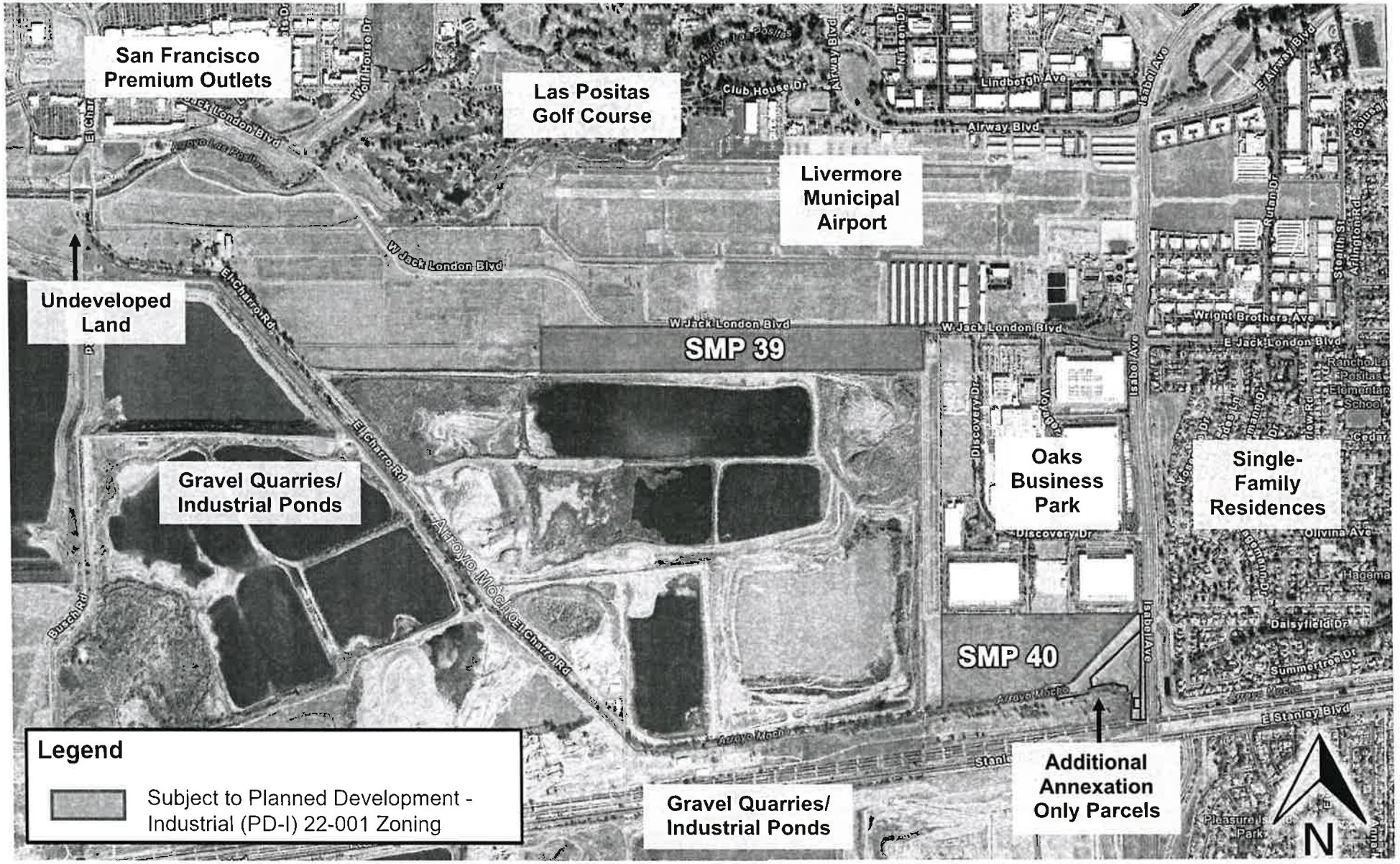
G. Other Required Standards for SMP 39 and 40:

1. Noise. No use shall be permitted which creates an ambient noise level greater than 75 decibels (dBA) beyond the boundaries of the site, nor greater than 60 decibels at the boundary of a Residential District.
   A. On SMP 39, semi-truck access to the site (arrivals and departures) shall be limited to 96 trips between the hours of 10:00 PM and 7:00 AM.
   B. On SMP 40, semi-truck access to the site (arrivals and departures) shall be limited to 40 trips between the hours of 10:00 PM and 7:00 AM
   C. Between the hours of 10:00 PM and 7:00 AM single-event noise levels (e.g., backup alarm, truck brakes, etc.) shall not exceed 55 dBA, measured at the property line of the nearest residential use.
2. Air Pollution. All uses shall comply with regulations of the San Francisco Bay Area Air Pollution Control District.
3. Vibration, Heat, Glare, Electrical Disturbance. No use shall be permitted which

creates noise, odors, vibrations, heat, glare, or electrical disturbances beyond the boundaries of the site. Lighting used to illuminate buildings, structures, uses, or parking and loading areas shall not be directed toward any public right-of-way.

4. Fire, Explosion. All uses shall provide adequate safety devices and adequate firefighting and fire suppression equipment to protect against fire, explosion, and other hazards.
5. Solid and Liquid Wastes. No solid or liquid waste discharges, other than permitted discharges into a public sewage disposal system, shall be permitted. The chemical composition and volume of industrial effluent discharged shall be subject to the wastewater permit requirements established by LMC Title 13, Division II. (Ord. 442 § 14.80).

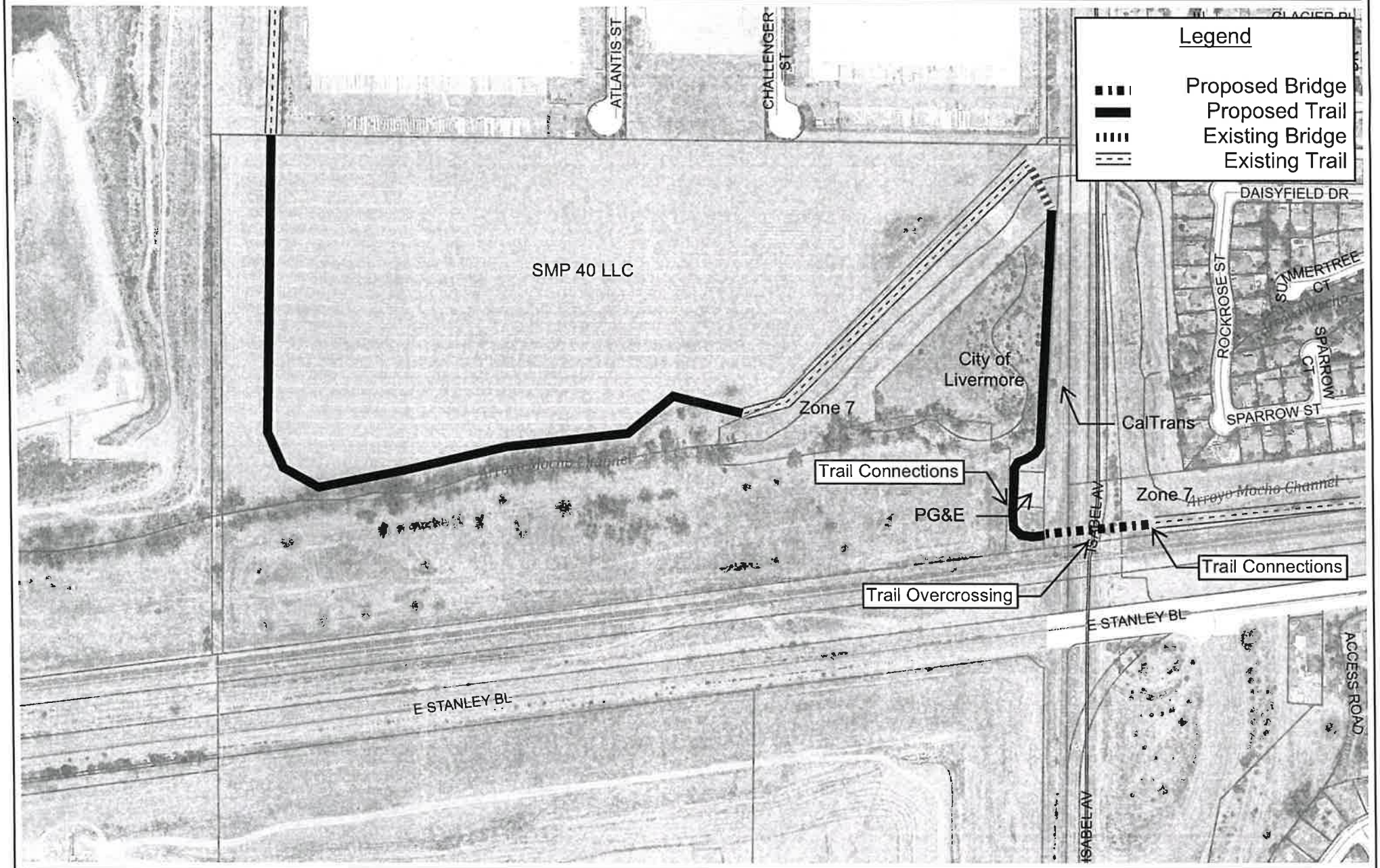
Figure 1


San Francisco Premium Outlets
Las Positas Golf Course
Livermore Municipal Airport
Undeveloped Land
SMP 39
SMP 40
Gravel Quarries/ Industrial Ponds
Oaks Business Park
Single-Family Residences
Gravel Quarries/ Industrial Ponds
Additional Annexation Only Parcels
W Jack London Blvd
Airway Blvd
Lindbergh Ave
Isabel Ave
El Charro Rd
Arroyo Mocho
Discovery Dr
E Stanley Blvd
Legend
Subject to Planned Development - Industrial (PD-I) 22-001 Zoning
N

LIVERMORE CALIFORNIA

Preliminary Arroyo Bike Trail Connection - Bridge Over Isabel Avenue

EXHIBIT A



800.0 0 400.00 800.0 Feet

NAD_1983_2011_StatePlane_California_III_FIPS_0403_Ft_US

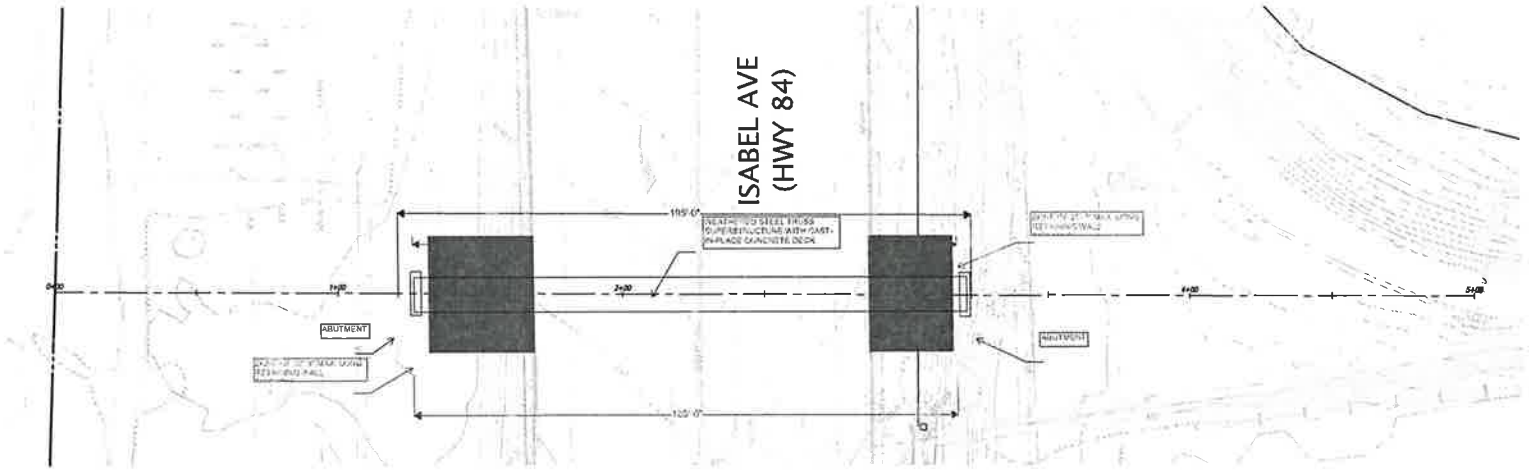
Livermore IT, GIS Services

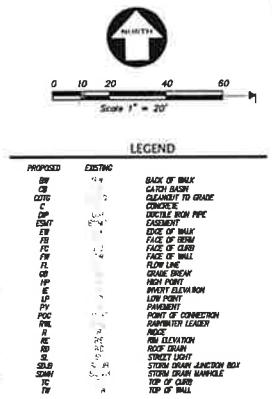
1: 4,800

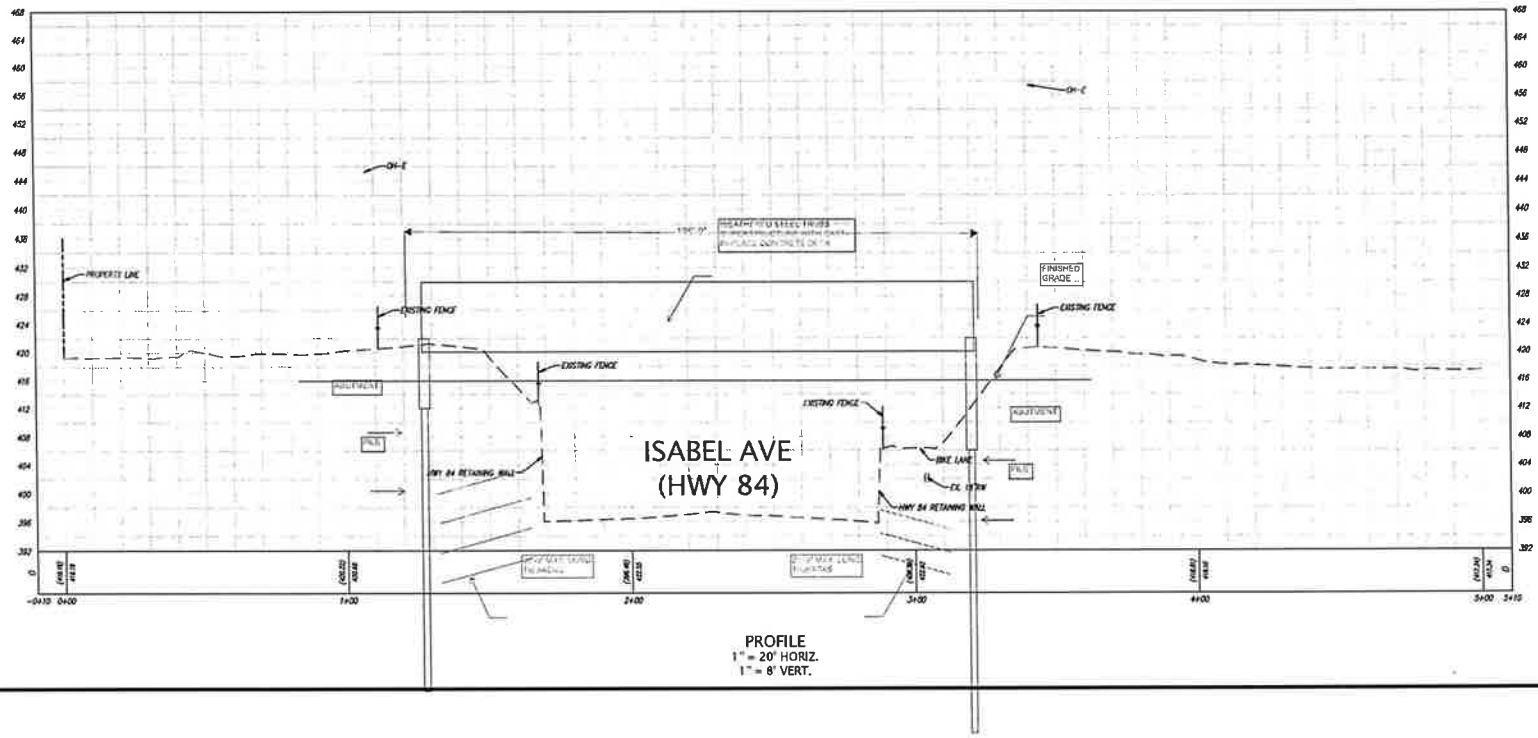
This map is based on City of Livermore GIS Information and reflects the most current information at the time of this printing. The map is intended for reference purposes only and the City and its staff is not responsible for errors or omissions.

Notes

1/12/2024







PRELIMINARY

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone (925) 245-8788

EXHIBIT - BRIDGE CROSSING
OF
SMP 40
FOR
LIVERMORE INDUSTRIAL PARTNERS 40 LLC
CALIFORNIA
LIVERMORE,

DATE JANUARY, 2024
SCALE AS SHOWN
DESIGNED JWM
DRAWN BY KW
JOB NO. 0656-54
SHEET 1
OF 1 SHEETS

2671

Trail Overcrossing and Trail Connections Credits

The Developer's monetary contribution towards the costs of the Trail Overcrossing and Trail Connections shall equal Seven-Hundred-Fifty-Thousand Dollars ($750,000.00) (the "Developer Obligation"). The $750,000 Developer Obligation is in addition to the design and permitting costs the Developer is responsible as set forth in the Agreement. City and Developer shall diligently pursue grant funding opportunities to fund the remaining Trail Overcrossing and Trail Connections, less the Developer Obligation. In the event that a grant funding opportunity is not successful, City shall credit Developer using Traffic Impact Fees (TIF) less the Developer Obligation, in accordance with Livermore Municipal Code Section 12.30.080, Credit and Reimbursement, and as set forth below in exchange for Developer constructing the Trail Overcrossing and Trail Connections.

The Developer shall provide, at its own cost, an Engineer's cost estimate for the Trail Overcrossing and Trail Connections, subject to the City Engineer's review and approval. The Engineer's cost estimate shall be submitted as part of the Final Map submittal as described in Section 4(c) of this Agreement.

The Engineer's cost estimate shall include all hard costs (including, without limitation, contractor time, materials), management costs (equaling 5% of the hard costs), City plan check and inspection, third party inspections, ten percent contingency (10%) applied to construction costs only, City building permit fees (if any), all other permitting and regulatory fees/costs, costs (including consultant costs) for environmental and regulatory approval of the Trail Overcrossing and Trail Connections, and construction bonds and insurance. The City's TIF credits shall equal up to a maximum of 10 percent over the Engineer's cost estimate; if the final cost estimate exceeds the Engineer's cost estimate by more than 10 percent, the Developer shall pay the remaining Trail Overcrossing and Trail Connections cost over the Engineer's estimate. For avoidance of doubt, Developer shall have no right of credits or reimbursements for the design costs of the Trail Overcrossing or Trail Connections. City shall credit Developer for the Trail Overcrossing and Trail Connections as follows:

City shall provide Developer a TIF credit of the SMP 40 Project's Traffic Impact Fees (the "Impact Fee Credit") for the identified Engineer's cost estimate for the Trail Overcrossing and Trail Connections (or up to a maximum of 10 percent over this estimate as specified above). The Impact Fee Credit shall be credited against the TIF that are collected at the time each building permit is paid, and on a permit-by-permit basis as Developer's obligations to pay such impact fees accrue until the last SMP 40 Project building permit is issued.

IN THE PLANNING COMMISSION OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION RECOMMENDING THAT THE CITY COUNCIL APPROVE GENERAL PLAN AMENDMENT (GPA) 21-001, ANNEXATION/PREZONING (APZ) 21-003, ZONING MAP AMENDMENT (ZMA) 21-002, PLANNED DEVELOPMENT-INDUSTRIAL (PD-I) 22-001, DEVELOPMENT CODE AMENDMENT (DCA) 21-005, VESTING TENTATIVE PARCEL MAP (SUB) 21-008, VESTING TENTATIVE TRACT MAP (SUB) 21-009, SITE PLAN DESIGN REVIEW (SPDR) 21-008, PRE-ANNEXATION AND DEVELOPMENT AGREEMENT (DA) 21-001, AND PRE-ANNEXATION AND DEVELOPMENT AGREEMENT (DA) 23-002 FOR THE SMP 39/SMP 40 PROJECT

The City received an application General Plan Amendment (GPA) 21-001, Annexation/Prezoning (APZ) 21-003, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, Site Plan Design Review (SPDR) 21-008, Pre-annexation and Development Agreement (DA) 21-001, and Pre-annexation and Development Agreement (DA) 23-002 for the SMP 39/SMP 40 Project ("Project") to develop approximately 1.51 million square feet of industrial development and associated parking, lighting, landscaping, and other improvements.

On March 5, 2024, the Planning commission held a duly noticed public hearing to consider the Project and staff recommendations, all public comments and testimony, and findings.

NOW, THEREFORE, BE IT RESOLVED, by the Planning Commission of the City of Livermore that prior to taking action on the Project, and at a properly noticed public meeting, the Planning Commission reviewed written and oral staff reports, conducted a public hearing on the Project and took testimony, and received into the record all pertinent documents related to the Project (collectively, the "Record Evidence"). The Planning Commission's determination is based on the Record Evidence, which is incorporated into this Resolution by reference.

BE IT FURTHER RESOLVED with respect to General Plan Amendment (GPA) 21-003 (attached hereto as Exhibit A) the Planning Commission of the City of Livermore finds based on the information presented:

1. The amendment is internally consistent with all other provisions of the General Plan.

   Response: The General Plan currently designates the SMP 39, SMP 40, and the Additional Annexation Only Parcels as Open Space/Sand and Gravel (OSP/S&G) and is adjacent to land designated by the General Plan as Low-Intensity Industrial (LII). The Project proposes to modify the General Plan designation for SMP 39 and SMP 40 to LII to permit light industrial development and the Additional Annexation Only Parcels to Parks, Trailways, and Recreation Areas (OSP). Development is not proposed on the Additional Annexation Only Parcels and the OSP designation is

consistent with the parcels' natural features and attributes, including their proximity to Arroyo Mocho. The change to a LII land use designation for the site supports and implements the General Plan and will be compatible with the existing and adjacent industrial uses in the Oaks Business Park and Livermore Municipal Airport, maximizing the use of existing public streets, services, and facilities. Therefore, the proposed changes are internally consistent with all other provisions of the General Plan.

2. The proposed amendment will not be detrimental to the public interest, health, safety, convenience, or welfare of the City.

   Response: The proposed General Plan Amendment will enable SMP 39 and SMP 40 to be developed with light industrial uses and achieve the General Plan Goals, Objectives, and Policies to focus light industrial uses around the Livermore Municipal Airport. In addition, the development will not include objectionable levels of noise, vibration, odors, glare, or hazard that would create a nuisance for surrounding uses. Planned Development – Industrial (PD-I) 22-001 zoning will implement the General Plan land use designation through use restrictions and development standards to ensure orderly and thoughtful development of the site with respect to the site's location and physical characteristics. Development is not proposed on the Additional Annexation Only Parcels. The Additional Annexation Only Parcels will be designated as OSP designation and rezoned to Open Space – Floodplain which is consistent with the parcels' natural features and attributes, including their proximity to Arroyo Mocho.

   In addition, the Project, including the necessary General Plan and Zoning amendments, was analyzed in conformance with the California Environmental Quality Act (CEQA) and found to have no adverse effect on the environment with mitigation incorporated, with the exception of converting agricultural land to non-agricultural uses as defined by the Alameda County Local Agency Formation Commission. However, the California Department of Conservation's Farmland Mapping and Monitoring Program does not classify the project site as Farmland. Therefore, the proposed amendment would not be detrimental to the public interest, health, safety, convenience, or welfare of the City.

3. The affected site is physically suitable in terms of design, location, shape, size, operating characteristics, and the provision of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment, and disposal, etc.), to ensure that the proposed or anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

   Response: Based on the plans and specifications provided by the Developer and reviewed by City staff, the SMP 39 and SMP 40 sites are physically suitable to

accommodate the industrial land use designation at the proposed intensity. In addition, the Project, including the necessary General Plan and Zoning Map Amendments, was analyzed in conformance with the California Environmental Quality Act (CEQA), which found the site was suitable in terms of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment and disposal, etc.). The proposed land use designation and the anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

BE IT FURTHER RESOLVED with respect to Annexation/Prezoning (APZ 21-003), Development Code Amendment (DCA) 21-005, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001 (attached hereto as Exhibits B and C) the Planning Commission of the City of Livermore finds based on the information presented:

1. The proposed amendment is consistent with the General Plan and any applicable Specific Plan.

   Response: The SMP 39 and SMP 40 properties will be prezoned to PD-I 22-001, which is consistent with the proposed General Plan land use designation of LII. The zone will be similar to the adjacent existing industrial uses and developed in compliance the PD-I 22-001 and Livermore Development Code standards. In addition, the Additional Annexation Only Parcels will be prezoned to OS-F zone, which is consistent with the proposed General Plan land use designation of OSP.

2. The proposed amendment will not be detrimental to the public interest, health, safety, convenience, or welfare of the City.

   Response: Based on staff analysis contained in the Planning Commission staff report and the SMP 39/SMP 40 EIR, there is no evidence that approval of the Zoning Map Amendment will be detrimental to the public interest, health, safety, convenience, or welfare of the City.

3. The proposed amendment is internally consistent with other applicable provisions of this Development Code.

   Response: The proposed Zoning Map Amendment would prezone SMP 39 and SMP 40 to PD-I 22-001 and prezone the Additional Annexation Only Parcels to OS-F. Prezoning is required prior to annexation of territory into the City. Therefore, the proposed amendment is consistent with all other applicable provisions of the Development Code.

4. The affected site is physically suitable in terms of design, location, shape, size, operating characteristics, and the provision of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm

drainage, wastewater collection, treatment, and disposal, etc.), to ensure that the requested zone designation and the proposed or anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

Response: Based on the plans and specifications provided by the Developer and reviewed by City staff, the SMP 39 and SMP 40 sites are physically suitable to accommodate the industrial land use designation at the proposed intensity. In addition, the Project, including the necessary General Plan and Zoning Map Amendments, was analyzed in conformance with the California Environmental Quality Act (CEQA), which found the site was suitable in terms of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment and disposal, etc.). The proposed land use designation and the anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

BE IT FURTHER RESOLVED with respect to the Vesting Tentative Parcel Map (SUB) 21-008 and Vesting Tentative Tract Map (SUB) 21-009 the Planning Commission of the City of Livermore finds based on the information presented:

1. The proposed map is consistent with the General Plan and any applicable specific plan, any policy or guideline implementing the General Plan (including the City's Design Standards and Guidelines), or other applicable provisions of this Development Code.

   Response: The Vesting Tentative Parcel Map and Vesting Tentative Tract Map were submitted with applications for a General Plan Amendment and Zoning Map Amendments (Annexation/Prezoning). Based on the approvals to change the General Plan land use designation to an industrial use and the proposed PD-I 22-001 zone, the proposed maps are consistent with the General Plan and the Development Code.

2. The site is physically suitable for the proposed type of development.

   Response: The development of approximately 1.51 million square feet of industrial development is consistent with the Low Intensity General Plan land uses, PD-I 22-001 zoning, and the Livermore Development Code, which confirms the proposed intensity and type of development are suitable for the site.

3. The design of the subdivision or the proposed improvements will not cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat. Notwithstanding the foregoing, the Commission or Council may approve a tentative map if an Environmental Impact Report was prepared with respect to the project and a statement of overriding considerations was made to the effect that specific economic, social, or other considerations make infeasible the

mitigation measures or project alternatives identified in the Environmental Impact Report.

Response: The project involves the development of two undeveloped sites with industrial uses. An Environmental Impact Report (EIR) was prepared for the project. The EIR finds that with mitigation measures (protocol surveys, state and federal agency coordination, and avoidance strategies for special status species), any potential impacts to fish or wildlife or their habitat will be reduced to less than significant.

4. The design of the subdivision or the type of improvements will not cause serious public health problems.

   Response: An EIR has been prepared for the project. The EIR finds that with mitigation measures, any potential impacts to public health will be reduced to less than significant.

5. The design of the subdivision or the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision (The Commission or Council may approve a tentative map if it finds that alternative easements for access will be provided, and that these will be substantially equivalent to ones previously acquired by the public. This Subparagraph shall apply only to easements of record or to easements established by judgment of a court of competent jurisdiction, and no authority is hereby granted to the Commission to determine that the public at large has acquired easements for access through or use of property within the proposed subdivision.)

   Response: There are no existing easements on SMP 39 or SMP 40. The Project includes an at-grade, paved trail within a 38.5-foot trail easement along the SMP 39 frontage on West Jack London Boulevard, consistent with the City's Active Transportation Plan. There is an access easement and public use easements on a portion of the Additional Annexation Only Parcels. However, this area will not be developed as part of the Project, with the exception of an at-grade trail along a portion of the Additional Annexation Only Parcels. The design of the subdivisions and the proposed development improvements avoids these easements and thus does not conflict with any public easements.

6. Any proposed phases and their proposed sequence of construction are identified on the submitted tentative map. The City may impose reasonable conditions relating to the filing of multiple final maps in conjunction with the approval of the tentative map (Section 66456.1).

   Response: The subdivision does not involve multiple phases.

BE IT FURTHER RESOLVED with respect to the Site Plan Design Review (SPDR) 21-008 the Planning Commission of the City of Livermore finds based on the information presented:

1. The proposed development will be allowed within the subject zone.

   Response: Based on the approval of the General Plan Amendment application to change the site to industrial use, in concert with prezoning the site to Planned Development – Industrial 22-001 zoning district, which permits light industrial uses and establishes appropriate development standards, the proposed development of industrial buildings is permitted within the subject zone.

2. Be designed such that:
   a. The project will not be detrimental to the public health, safety, or general welfare, and not detrimental to adjacent property;
   b. Architectural design and functional plan of the structure(s) and related improvements are of reasonable aesthetic quality and compatible with adjacent developments;
   c. Structure(s) and related improvements are suitable for the proposed use of the property and provide adequate consideration of the existing and contemplated uses of land and orderly development in the general area of the subject site; and
   d. The project's site plan and design is consistent with the City's Design Standards and Guidelines.

   Response: An Environmental Impact Report (EIR) was prepared for the project. The EIR does not find any significant impacts on the public health, safety, or general welfare to adjacent properties. Based on the review of the development plans for the Project, the design of the proposed development is compatible with adjacent developments and consistent with the Design Standards and Guidelines. No aspect of the proposed development will be detrimental to the existing uses of land and the orderly development in the general area.

3. Be designed to include the following criteria, as applicable:
   a. Compliant with this Chapter, this Development Code, Municipal Code Title 15 (Buildings and Construction), and all other applicable City regulations and policies;
   b. Efficient site layout and design;
   c. Compatible and appropriate scale to neighboring properties and developments;
   d. Efficient and safe public access (both pedestrian and vehicular) and parking;
   e. Appropriate and harmonious arrangement and relationship of proposed structures and signs to one another and to other development in the vicinity, based on good standards of design;
   f. Appropriate relationship to land use and development of adjacent properties, including topographic and other physical characteristics of the land;

g. Proper site utilization and the establishment of a physical and architectural relationship to existing and proposed structures on the site;
h. Compatible architectural style with the character of the surrounding area, both to avoid repetition of identical design where not desired, and to ensure compatibility in design where desired;
i. Harmonious relationship with existing and proposed developments and the avoidance of both excessive variety and monotonous repetition;
j. Compatible in color, material, and composition of the exterior elevations to neighboring visible structures;
k. Appropriate exterior lighting which provides for public safety and is not of a nature that will constitute a hazard or nuisance to adjacent properties;
l. Compatible in scale and aesthetic treatment of proposed structures with public areas;
m. Appropriate open space and use of water efficient landscaping; and
n. Consistent with the General Plan and any applicable Specific Plan.

Response: The Project is designed to be compatible and in scale with the existing surrounding developments. The Project is designed to provide adequate on-site improvements including parking, lighting and landscaping. Based on the design review of the project, as documented in the Planning Commission staff report, the Project meets all the design criteria identified above.

BE IT FURTHER RESOLVED with respect to the Pre-annexation and Development Agreement (DA) 21-001 and Pre-annexation and Development Agreement (DA) 23-002 (attached hereto as Exhibits D and E, respectively) the Planning Commission of the City of Livermore finds based on the information presented:

1. The Development Agreement provides benefit to the City.

   Response: The Development Agreements establish terms and obligations for public benefits, including the Applicant's financial contribution toward and construction of the off-site trail improvements and financial contribution to the City's Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001. For these reasons, the Development Agreements will provide benefit to the City.

2. The Development Agreement is consistent with the purpose, intent, goals, policies, programs, and land use designations of the General Plan, any applicable Specific Plan, and this Development Code.

   Response: The Development Agreements require the Applicant to provide a financial contribution to the City's Office of Innovation and Economic Development Department, which is to be used towards marketing SMP 39 for the desired land uses identified in PD-I 22-001. This is consistent with the purpose, intent, goals, policies, and programs, of the General Plan. Specifically, this will implement policies and actions in the General Plan Economic Development element to encourage existing businesses to remain and grow in

Livermore, and attract a range of new businesses to locate in Livermore. The Development Agreements also include financial contribution toward and construction of the off-site trail improvements identified in the City's Active Transportation Plan. This is consistent with the purpose, intent, goals, policies, and programs of the General Plan and the Active Transportation Plan to improve bicycle and pedestrian circulation and connectivity.

3. The Development Agreement complies with the requirements of Government Code Sections 65864 through 65869.5

   Response: The proposed development complies with the requirements of Government Code Section 65864 through 65869.5 by securing the terms and timing for off-site improvements and amenities for the benefit of the broader Livermore community.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore has considered the Record Evidence and adopted a resolution recommending the City Council certify an Environmental Impact Report.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore has considered the findings set forth above and adopts these findings as part of this resolution. Based upon the Planning Commission's independent review of the Record Evidence and considerations, the Planning Commission recommends that the City Council approve General Plan Amendment (GPA) 21-001, Annexation/Prezoning (APZ) 21-003, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008, subject to the Conditions of Approval attached hereto as Exhibit F, for the SMP 39/SMP 40 Project.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore has considered the findings set forth above and adopts these findings as part of this resolution. Based upon the Planning Commission's independent review of the Record Evidence and considerations, the Planning Commission recommends that the City Council approve Pre-annexation and Development Agreement (DA) 21-001, and Pre-annexation and Development Agreement (DA) 23-002 in substantial conformance with Exhibits D and E, subject to the Conditions of Approval attached hereto as Exhibit F, for the SMP 39/SMP 40 Project.

BE IT FURTHER RESOLVED that the Planning Commission of the City of Livermore recommends the City Council authorize submission of an application to the Alameda County Local Agency Formation Commission to initiate a sphere of influence modification and annexation proceedings for the Subject Property.

BE IT FURTHER RESOLVED, the Planning Commission of the City of Livermore recommends that the City Council direct the Planning Manager to file a Notice of Determination with the Alameda County Clerk, if the project is approved.

The documents that constitute the record of proceedings upon which this decision is based can be found in the Community Development Department, 1052 S. Livermore Avenue, in Livermore, California.
On the motion by Commissioner Leary, seconded by Commissioner Fintschenko, the foregoing Resolution was passed and adopted at the Planning Commission meeting of March 5, 2024, by the following vote:

AYES: ANDERSON, DUNBAR, FINTSCHENKO, KRONZAK, LEARY.
NOES: NONE.
ABSENT: NONE.

Jacob Anderson, Chairperson

Steve Riley

by Steve Riley, Acting Planning Manager
Secretary to the Planning Commission

Exhibit A – General Plan Amendment (GPA) 21-001
Exhibit B – Zoning Map Amendment (ZMA) 21-002
Exhibit C – Draft Planned Development-Industrial 22-001 Zoning
Exhibit D – Draft Development Agreement (DA) 23-002
Exhibit E – Draft Development Agreement (DA) 21-001
Exhibit F – Conditions of Approval

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION AUTHORIZING SUBMITTAL OF AN APPLICATION TO THE ALAMEDA COUNTY LOCAL AGENCY FORMATION COMMISSION TO REQUEST INITIATION OF SPHERE OF INFLUENCE AMENDMENT AND ANNEXATION PROCEEDINGS AND AUTHORIZING THE EXCHANGE OF PROPERTY TAX REVENUE AND EXECUTION OF THE TRANSFER OF PROPERTY TAX REVENUES AGREEMENT FOR THE SMP 39/SMP 40 PROJECT

The City of Livermore ("City") received applications for Annexation/Prezoning (APZ) 21-003 concurrently with General Plan Amendment (GPA) 21-001, Zoning Map Amendment (ZMA) 21-002, Planned Development-Industrial (PD-I) 22-001, Development Code Amendment (DCA) 21-005, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, Site Plan Design Review (SPDR) 21-008, Pre-Annexation and Development Agreement (DA) 21-001, and Pre-Annexation and Development Agreement (DA) 23-002 for the SMP 39/SMP 40 Project ("Project") to develop approximately 1.51 million square feet of industrial development and associated parking, lighting, landscaping, and other improvements.

The Project site is comprised of six parcels (Assessor Parcel Numbers 904-3-1-4 known as SMP 39, APN 904-10-2-2 known as SMP 40, and 904-10-2-3, -5, -7, and -8 known as Additional Annexation Only Parcels) (hereinafter referred to as "the Subject Properties"), is in unincorporated Alameda County. Maps depicting the Subject Properties are attached hereto as Exhibits A and B.

The City has an interest and authority in protecting the public's general health, safety, and welfare, as well as facilitating orderly development within its City limits and sphere of influence.

Pursuant to the Cortese-Knox-Hertzberg Local Government Reorganization Act, beginning with section 56000 of the California Government Code, an affected city, as therein defined, may make a proposal for an annexation and request initiation of proceedings by resolution adopted by its legislative body. The City of Livermore is an "affected city" for an annexation proposal because its sphere of influence contains territory for which a change of organization is proposed.

Revenue and Taxation Code Section 99 provides, among other requirements, that no local agency jurisdictional change can be completed without the agencies affected first having agreed upon an exchange of property tax revenue. On August 15, 1995, the Alameda County Board of Supervisors adopted a policy on annexation and tax sharing agreements that provided, in part, "that it is the policy of this Board that the County will negotiate all tax sharing agreements in good faith and consider compensation to the County for the full range of costs associated with providing Countywide facilities and services". Each specific annexation requires a resolution from the annexing city and the County agreeing to the exchange of property tax revenues as a requisite before the annexation can be completed and filed with the State.

The City of Livermore now desires to enter into a tax exchange agreement specific to the Subject Property for the proposed annexation.

At a duly noticed public hearing on March 5, 2024, the Planning Commission considered the staff recommendation for approval and heard public testimony.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore that on March 25, 2024, the City Council considered in public hearings the proposals, staff recommendations, recommendations of the Planning Commission, public testimony, and findings, and certified by resolution the Final Environmental Impact Report for the SMP 39/SMP 40 Project pursuant to the California Environmental Quality Act, and introduced an ordinance to pre-zone the Subject Property to Planned Development – Industrial 22-001 and Open Space-Floodplain.

BE IT FURTHER RESOLVED that the City Council of the City of Livermore authorizes submission of an application to the Alameda County Local Agency Formation Commission to initiate sphere of influence amendment and annexation proceedings for the Subject Property.

BE IT FURTHER RESOLVED that the City Council of the City of Livermore requests the Auditor-Controller of the County of Alameda to cause an exchange of property tax revenues pursuant to the provisions of, and in substantial conformance with, the draft Property Tax Sharing Agreement, attached hereto as Exhibit C, between the County of Alameda and the City of Livermore, pursuant to the foregoing policies. The City Council hereby authorizes the Mayor to execute the Property Tax Sharing Agreement on behalf of the City of Livermore, subject to review and approval by the City Attorney.

On motion of Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted on March 25, 2024, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

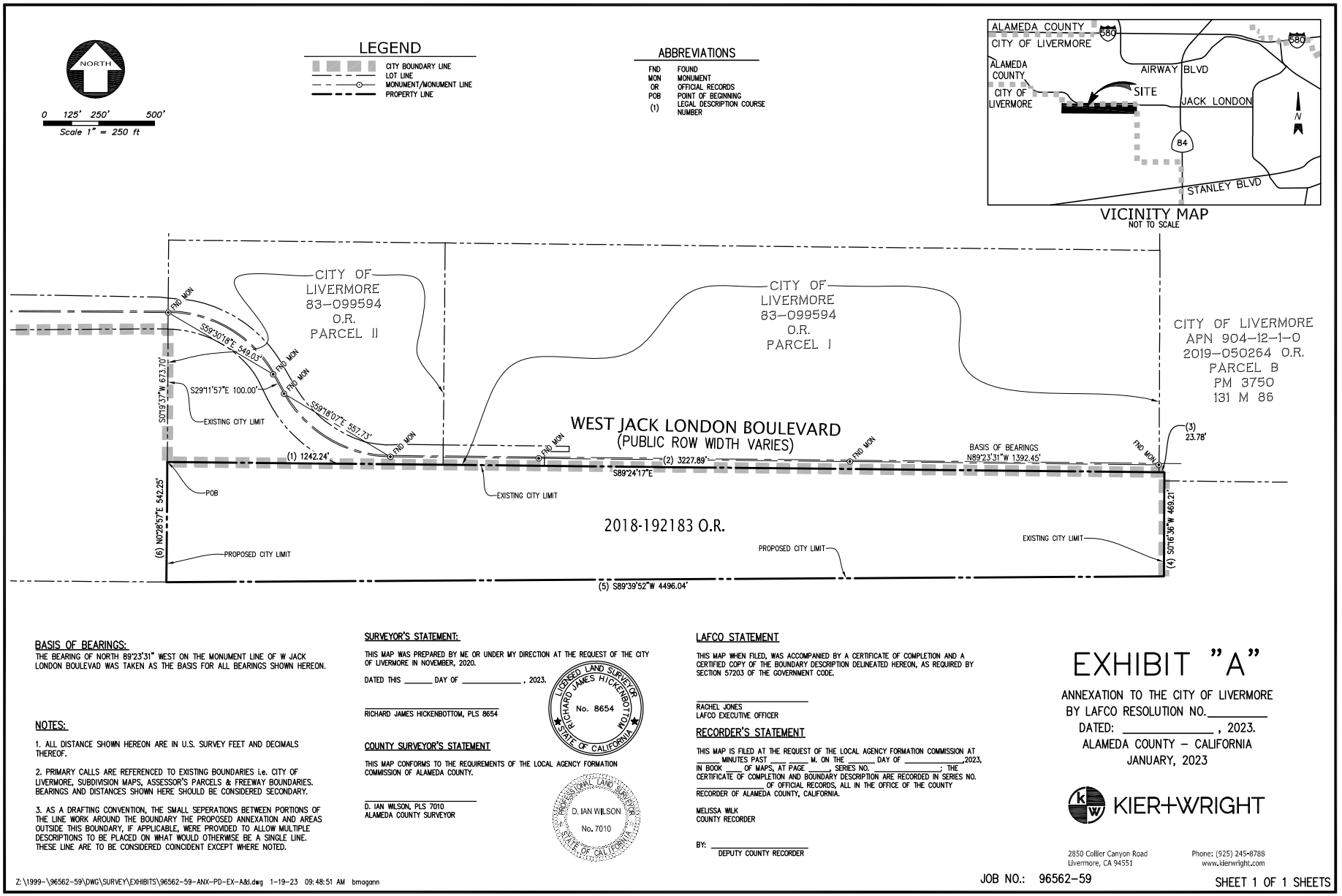
ATTEST:

_____
Deborah L. Elam
Acting City Clerk

APPROVED AS TO FORM:

/s/ Kimberly D. Cilley
Kimberly D. Cilley
Senior Assistant City Attorney

Exhibit A – Annexation Boundary Map – SMP 39
Exhibit B – Annexation Boundary Map – SMP 40 and Additional Annexation Only Parcels
Exhibit C – Draft Property Tax Sharing Agreement



BASIS OF BEARINGS:
THE BEARING OF NORTH 89°23'31" WEST ON THE MONUMENT LINE OF W JACK LONDON BOULEVAD WAS TAKEN AS THE BASIS FOR ALL BEARINGS SHOWN HEREON.

NOTES:

1. ALL DISTANCE SHOWN HEREON ARE IN U.S. SURVEY FEET AND DECIMALS THEREOF.

2. PRIMARY CALLS ARE REFERENCED TO EXISTING BOUNDARIES i.e. CITY OF LIVERMORE, SUBDIVISION MAPS, ASSESSOR'S PARCELS & FREEWAY BOUNDARIES. BEARINGS AND DISTANCES SHOWN HERE SHOULD BE CONSIDERED SECONDARY.

3. AS A DRAFTING CONVENTION, THE SMALL SEPERATIONS BETWEEN PORTIONS OF THE LINE WORK AROUND THE BOUNDARY THE PROPOSED ANNEXATION AND AREAS OUTSIDE THIS BOUNDARY, IF APPLICABLE, WERE PROVIDED TO ALLOW MULTIPLE DESCRIPTIONS TO BE PLACED ON WHAT WOULD OTHERWISE BE A SINGLE LINE. THESE LINE ARE TO BE CONSIDERED COINCIDENT EXCEPT WHERE NOTED.

SURVEYOR'S STATEMENT:

THIS MAP WAS PREPARED BY ME OR UNDER MY DIRECTION AT THE REQUEST OF THE CITY OF LIVERMORE IN NOVEMBER, 2020.

DATED THIS _____ DAY OF _____, 2023.

_____
RICHARD JAMES HICKENBOTTOM, PLS 8654

LICENSED LAND SURVEYOR
RICHARD JAMES HICKENBOTTOM
No. 8654
STATE OF CALIFORNIA

COUNTY SURVEYOR'S STATEMENT

THIS MAP CONFORMS TO THE REQUIREMENTS OF THE LOCAL AGENCY FORMATION COMMISSION OF ALAMEDA COUNTY.

_____
D. IAN WILSON, PLS 7010
ALAMEDA COUNTY SURVEYOR

PROFESSIONAL LAND SURVEYOR
D. IAN WILSON
No. 7010
STATE OF CALIFORNIA

LAFCO STATEMENT

THIS MAP WHEN FILED, WAS ACCOMPANIED BY A CERTIFICATE OF COMPLETION AND A CERTIFIED COPY OF THE BOUNDARY DESCRIPTION DELINEATED HEREON, AS REQUIRED BY SECTION 57203 OF THE GOVERNMENT CODE.

_____
RACHEL JONES
LAFCO EXECUTIVE OFFICER

RECORDER'S STATEMENT

THIS MAP IS FILED AT THE REQUEST OF THE LOCAL AGENCY FORMATION COMMISSION AT _____ MINUTES PAST _____, M. ON THE _____ DAY OF _____,2023, IN BOOK ____ OF MAPS, AT PAGE ____, SERIES NO. _____; THE CERTIFICATE OF COMPLETION AND BOUNDARY DESCRIPTION ARE RECORDED IN SERIES NO. _____ OF OFFICIAL RECORDS, ALL IN THE OFFICE OF THE COUNTY RECORDER OF ALAMEDA COUNTY, CALIFORNIA.

MELISSA WILK
COUNTY RECORDER

BY: _____
DEPUTY COUNTY RECORDER

EXHIBIT "A"

ANNEXATION TO THE CITY OF LIVERMORE
BY LAFCO RESOLUTION NO._____
DATED: _____, 2023.
ALAMEDA COUNTY – CALIFORNIA
JANUARY, 2023

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

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JOB NO.: 96562-59

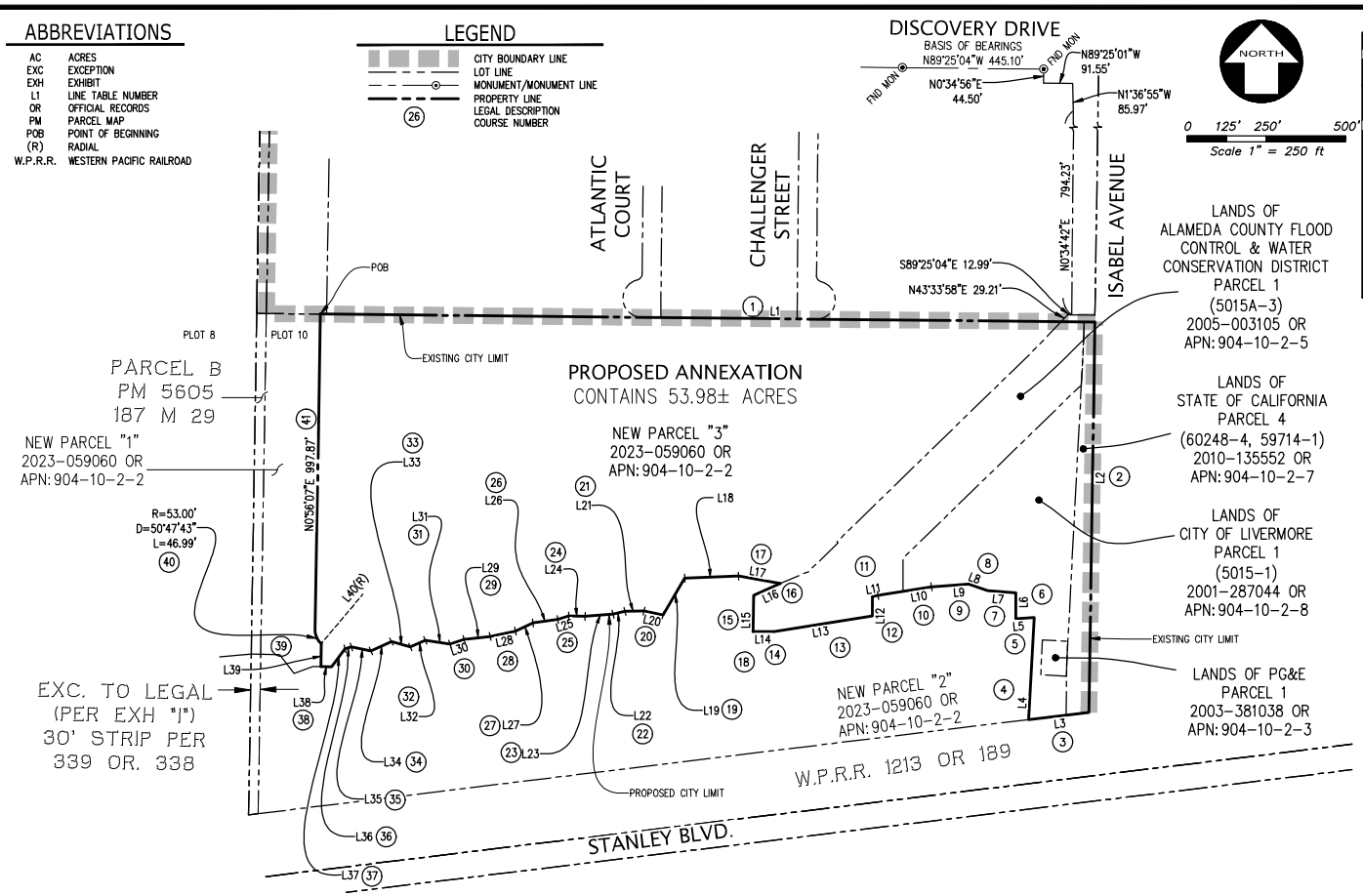
SHEET 1 OF 1 SHEETS

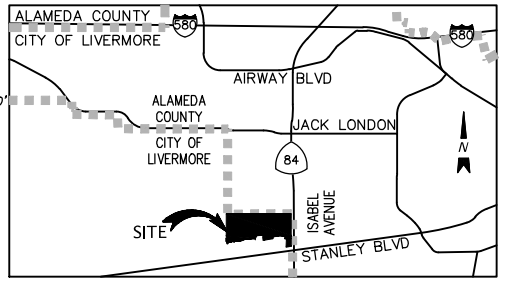
ABBREVIATIONS

AC	ACRES
EXC	EXCEPTION
EXH	EXHIBIT
L1	LINE TABLE NUMBER
OR	OFFICIAL RECORDS
PM	PARCEL MAP
POB	POINT OF BEGINNING
(R)	RADIAL
W.P.R.R.	WESTERN PACIFIC RAILROAD

LEGEND

CITY BOUNDARY LINE
LOT LINE
MONUMENT/MONUMENT LINE
PROPERTY LINE
LEGAL DESCRIPTION COURSE NUMBER
(26)





VICINITY MAP
NOT TO SCALE

LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	S89°25'04"E	2441.72'
L2	S0°51'28"W	1231.32'
L3	S83°02'10"W	191.75'
L4	N3°01'35"E	322.83'
L5	S85°58'35"W	57.59'
L6	N0°01'02"E	81.75'
L7	N85°21'35"W	88.79'
L8	N70°58'06"W	64.13'
L9	S85°36'13"W	117.55'
L10	S80°49'47"W	170.13'
L11	S79°32'20"W	18.31'
L12	S0°01'02"W	61.21'
L13	S80°51'23"W	312.91'
L14	N89°54'25"W	66.91'
L15	N0°46'49"E	114.58'
L16	N66°23'54"E	91.97'
L17	N79°43'36"W	133.99'
L18	S87°47'59"W	169.88'
L19	S30°22'01"W	134.90'
L20	N78°13'02"W	61.26'

LINE TABLE		
LINE #	DIRECTION	LENGTH
L21	S89°02'56"W	59.76'
L22	S76°41'58"W	38.45'
L23	S85°37'00"W	88.93'
L24	N89°20'02"W	51.57'
L25	S72°51'21"W	36.16'
L26	S82°16'37"W	78.80'
L27	S64°37'46"W	61.50'
L28	S78°31'36"W	81.76'
L29	S83°24'14"W	81.60'
L30	S72°01'56"W	47.59'
L31	N81°21'57"W	78.32'
L32	S66°04'08"W	52.31'
L33	N73°49'03"W	61.50'
L34	S65°34'35"W	70.95'
L35	N78°45'27"W	62.83'
L36	S74°17'49"W	20.74'
L37	S36°43'43"W	70.68'
L38	N89°03'53"W	34.19'
L39	N0°56'07"E	72.40'
L40	S40°08'24"W	53.00'

EXHIBIT "A"

ANNEXATION TO THE CITY OF LIVERMORE
BY LAFCO RESOLUTION NO._____
DATED: _____, 2023.
ALAMEDA COUNTY – CALIFORNIA
SEPTEMBER, 2023

BASIS OF BEARINGS:
THE BEARING OF NORTH 89° 25' 04" WEST TAKEN ON THE MONUMENT LINE OF DISCOVERY DRIVE AS SHOWN ON THAT CERTAIN PARCEL MAP NUMBER 10266 FILED FOR RECORD ON DECEMBER 30, 2014, IN BOOK 328 OF MAPS AT PAGES 37-41, OFFICIAL RECORDS OF ALAMEDA COUNTY WAS TAKEN AS THE BASIS FOR ALL BEARINGS SHOWN HEREON.

NOTES:

1. ALL DISTANCE SHOWN HEREON ARE IN U.S. SURVEY FEET AND DECIMALS THEREOF.

2. PRIMARY CALLS ARE REFERENCED TO EXISTING BOUNDARIES i.e. CITY OF LIVERMORE, SUBDIVISION MAPS, ASSESSOR'S PARCELS & FREEWAY BOUNDARIES. BEARINGS AND DISTANCES SHOWN HERE SHOULD BE CONSIDERED SECONDARY.

3. AS A DRAFTING CONVENTION, THE SMALL SEPERATIONS BETWEEN PORTIONS OF THE LINE WORK AROUND THE BOUNDARY THE PROPOSED ANNEXATION AND AREAS OUTSIDE THIS BOUNDARY, IF APPLICABLE, WERE PROVIDED TO ALLOW MULTIPLE DESCRIPTIONS TO BE PLACED ON WHAT WOULD OTHERWISE BE A SINGLE LINE. THESE LINE ARE TO BE CONSIDERED COINCIDENT EXCEPT WHERE NOTED.

SURVEYOR'S STATEMENT:

THIS MAP WAS PREPARED BY ME OR UNDER MY DIRECTION AT THE REQUEST OF THE CITY OF LIVERMORE IN NOVEMBER, 2020.

DATED THIS 26TH DAY OF OCTOBER , 2023.

RICHARD JAMES HICKENBOTTOM, PLS 8654

LICENSED LAND SURVEYOR
RICHARD JAMES HICKENBOTTOM
No. 8654
STATE OF CALIFORNIA

COUNTY SURVEYOR'S STATEMENT

THIS MAP CONFORMS TO THE REQUIREMENTS OF THE LOCAL AGENCY FORMATION COMMISSION OF ALAMEDA COUNTY.

D. IAN WILSON, PLS 7010
ALAMEDA COUNTY SURVEYOR

D. IAN WILSON
No. 7010
STATE OF CALIFORNIA

LAFCO STATEMENT

THIS MAP WHEN FILED, WAS ACCOMPANIED BY A CERTIFICATE OF COMPLETION AND A CERTIFIED COPY OF THE BOUNDARY DESCRIPTION DELINEATED HEREON, AS REQUIRED BY SECTION 57203 OF THE GOVERNMENT CODE.

RACHEL JONES
LAFCO EXECUTIVE OFFICER

RECORDER'S STATEMENT

THIS MAP IS FILED AT THE REQUEST OF THE LOCAL AGENCY FORMATION COMMISSION AT _____ MINUTES PAST _____ M. ON THE _____ DAY OF _____,2023, IN BOOK _____ OF MAPS, AT PAGE _____, SERIES NO. _____; THE CERTIFICATE OF COMPLETION AND BOUNDARY DESCRIPTION ARE RECORDED IN SERIES NO. _____ OF OFFICIAL RECORDS, ALL IN THE OFFICE OF THE COUNTY RECORDER OF ALAMEDA COUNTY, CALIFORNIA.

MELISSA WILK
COUNTY RECORDER

BY: _____
DEPUTY COUNTY RECORDER

KIER+WRIGHT

2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

Z:\1999-\96562-54\DWG\SURVEY\EXHIBITS\96562-54-ANX-EX-Add.dwg 10-26-23 10:18:53 AM cjunokas

JOB NO.: 96562-54

SHEET 1 OF 1 SHEETS

AGREEMENT BETWEEN THE COUNTY OF ALAMEDA AND THE CITY OF LIVERMORE REGARDING TRANSFER OF PROPERTY TAX REVENUES IN CONNECTION WITH THE SMP 39 & SMP 40 PROJECT

This Agreement is made pursuant to the provisions of Revenue and Taxation Code Section 99 and shall constitute the agreement for exchange of property tax revenues required by the Revenue and Taxation Code Section 99(b)(6). Furthermore, Revenue and Taxation Code Section 99(b)(5) provides that if a jurisdictional change will alter the service area or service responsibility of a special district, the Board of Supervisors of the county in which the special district is located shall negotiate any exchange of property tax revenues on behalf of the special district.

The parties agree that the lands to be annexed is described as follows:

The subject property consists of six parcels: i) Assessor Parcel Number (APN) 904-3-1-4 known as SMP 39, generally located north of Stanley Boulevard, east of SMP 38, south of West Jack London Boulevard, and west of Discovery Drive; ii) APN 904-10-2-2 known as SMP 40 and 904-10-2-3, -5, -7, and -8 known as Additional Annexation Only Parcels are generally located north of Stanley Boulevard, east of El Charro Road, south of West Jack London Boulevard and west of Isabel Avenue/State Route 84. SMP 39 is approximately 52 acres, SMP 40 is approximately 41 acres, and the Additional Annexation Only Parcels are collectively approximately 13 acres. The subject properties are currently vacant and SMP 39 and 40 propose development under City regulations. Development is not proposed on the Additional Annexation Only Parcels.

Attachment 1 lists all applicable parcel numbers to this agreement and is incorporated herein. The parties agree that for the annexation of these parcels, the Auditor-Controller of the County of Alameda is directed to cause an exchange of property tax revenue as follows:

A. The City is entitled to receive an allocation of computed property tax revenue equivalent to the share of property tax revenue it receives on a weighted average citywide. The weighted citywide average shall be computed annually as follows: multiply the city's current ABB factor in each tax rate area within the city by the current secured assessed valuation in each tax rate area to arrive at a product for each tax rate area. The sum of those products is divided by the total secured assessed valuation within the city to arrive at a

weighted citywide average. The secured tax roll is used here to establish the weighted citywide average. However, the factors resulting from application of the formula will apply to all tax rolls.

B. In the event that the City currently provides a service within its incorporated City limits such as Fire or Library, and if that service is currently being provided by a County taxing agency or special district in the territory proposed for annexation, the County shall receive an allocation of computed property tax revenue equivalent to the share of property tax revenue received by the County taxing agency or special district in the territory proposed for annexation. The County's receipt of that allocation shall not diminish the City's receipt of its allocation calculated under A above.

C. In the event that the City assumes full responsibility for a service not currently being provided by the City within its incorporated city limits, but being provided by a separate County taxing agency or special district within the territory proposed for annexation, pursuant to Revenue and Taxation Code 99(b), the City shall receive, in addition to the allocation determined in A above, an allocation of computed property tax revenue equivalent to the share of property tax revenue received by the County taxing agency or special district in the territory proposed for annexation.

D. The County shall receive an allocation of computed property tax revenue equivalent to its current share of property tax revenue in the territory proposed for annexation plus the share or shares of property tax revenue allocated to it in section B above, less the share of computed property tax revenue allocated to the City in section A above, and in section C above as applicable.

E. In the event that this annexation includes or results in the detachment of one or more parcels or portions thereof from the City and those parcels or portions thereof are transferred to the County or to another jurisdiction, the City hereby waives any right, interest, or claim to property tax on such parcels or portions thereof as identified in Exhibit A. The parcels or portions thereof shall be transferred to the County or jurisdiction subject to the conditions of paragraphs A through Das specified in this agreement.

This exchange of property tax revenues will be effective as to each property annexed within the subject annexation area for the fiscal year following the filing with the State Board of Equalization of the Certificate of Completion for such property providing the filing occurs prior to December 31 of the preceding year.

EXHIBIT C

CITY OF LIVERMORE

DATED: _____

_____
Mayor

APPROVED AS TO FORM:

DATED: _____

_____
City Attorney

EXHIBIT C

COUNTY OF ALAMEDA

DATED: _____

_____
President, Board of Supervisors

APPROVED AS TO FORM:

DATED: _____

_____
County Counsel

Exhibit 1 - Parcels Subject to This Property Tax Sharing Agreement Upon Annexation

EXHIBIT C

Parcels Subject to This Property Tax Sharing Agreement Upon Annexation

SMP 39: 904-3-1-4

SMP 40: 904-10-2-2

Additional Annexation Only Parcels: 904-10-2-3, 904-10-2-5, 904-10-2-7, and 904-10-2-8

LIVERMORE
CALIFORNIA

CITY COUNCIL STAFF REPORT **ITEM NO. 10.1**

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Marianna Marysheva, City Manager

SUBJECT: Supplemental materials received prior to the meeting.

RECOMMENDED ACTION

SUMMARY

These materials were posted online and made available to the public at the same time that they were distributed to the City Council.

3.1	Confirm Advisory Body appointments to the Airport Commission, the Alameda County Mosquito Abatement District Board of Trustees, Beautification Committee, Commission for the Arts, Historic Preservation Commission, Library Board of Trustees, and City Historian, and direct the City Clerk to administer the oath of office. Material: PowerPoint Presentation
4.0	Public Comment - Open Forum Material: Public Comment
5.6	Resolution approving the 2024 City of Livermore State and Federal Legislative Platform. Material: Supplemental Memo
6.1	Hearing to consider the Housing Element Annual Progress Report, which tracks the City's progress towards implementing the Housing Element of the General Plan and meeting its Regional Housing Needs Allocation (RHNA), pursuant to Government Code Section 65400. Material: PowerPoint Presentation

6.2	Hearing to consider a request for an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Development Code Amendment, Vesting Tentative Parcel Map, Vesting Tentative Tract Map, Planned Development, and Site Plan Design Review for the SMP 39 and 40 Project to zone for and develop light industrial uses near the northwest part of the City. Material: PowerPoint Presentation
6.3	Hearing to consider a request for an Annexation/Prezoning, Pre-Annexation and Development Agreements, General Plan Amendment, Zoning Map Amendment, Development Code Amendment, Vesting Tentative Parcel Map, Vesting Tentative Tract Map, Planned Development, and Site Plan Design Review for the SMP 39 and 40 Project to zone for and develop light industrial uses near the northwest part of the City. Material: PowerPoint Presentations
8.0	Council Committee Reports and Matters Initiated by City Manager, City Attorney, Staff, and Council Members Material: Council Reports

DISCUSSION

ATTACHMENTS

1. Supplemental Materials

Prepared by: Helena Graves
Deputy City Clerk

Approved by:

Marianna Marysheva
City Manager

Fiscal Review by:

Tina Olson
Administrative Services Director

Confirmation of Advisory Body Appointments

March 25, 2024
Presented by Debbie Elam, Acting City Clerk

CITY OF LIVERMORE CALIFORNIA

1

Alameda County Mosquito Abatement District Board of Trustees

Appointment to an unexpired term ending January 1, 2027

- Maya Manoharan

Airport Commission

Appointment to an unexpired term ending November 1, 2027

- David Farley

Commission for the Arts

Appointment to an unexpired term ending January 1, 2025

- Thomasin Dewhurst

Library Board of Trustees

Reappointment to a regular term ending June 1, 2027

- Richard Hunt

CITY OF LIVERMORE CALIFORNIA

2

Beautification Committee

Appointment to regular terms ending June 1, 2028

- Kat Weiss
- Ann Brown

Appointment to an unexpired term ending June 1, 2027

- Andrew Wang

Appointments to unexpired and regular terms ending June 1, 2028

- Ron Kraft
- Tom Bradley

Historic Preservation Commission

Appointment to a regular term ending May 1, 2028

- Fred Cullum

Appointment to an unexpired and regular term ending May 1, 2028.

- Neal Pann

CITY OF LIVERMORE CALIFORNIA

3

City Historian

Appointment to an unexpired term ending February 1, 2026

- Alan Frank

CITY OF LIVERMORE CALIFORNIA

4

Helena Graves

From: Joyce Moulden [redacted]
Sent: Monday, March 18, 2024 10:04 AM
To: AirportDevelopment; Brandon Cardwell; Shin Oh; City Clerk; varkin@cityofpleasantonca.gov; Angela Hescher; lacg@livermoreairportnoise.org; kbrown@cityofpleasantonca.gov; Livermore City Council
Subject: NO AMAZON Cargo, or Air Taxi Service, or Large Jet planes at Livermore Airport

[redacted] [redacted]

[redacted]

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Please DO NOT increase Livermore Airport Land Use to include large jet planes for Amazon Cargo, Air Taxi Service or any other use.
There is already enough airplane noise and pollution as is.

DO NOT ALLOW AMAZON Cargo, or Air Taxi Service, or Large Jet planes at Livermore Airport.

Joyce Moulden
Livermore Resident since 1968

Helena Graves

From: Paul & Lori Sanborn [redacted]
Sent: Monday, March 18, 2024 10:34 AM
To: AirportDevelopment; Brandon Cardwell; Benedict (Benny) Stuth; Livermore City Council; City Clerk; council@dublin.ca.gov; Pleasanton Weekly Editor; The Independent; Livemore Airport Citizens Group (LACG); Angela Hescher; varkin@cityofpleasantonca.gov; kbrown@cityofpleasantonca.gov
Subject: Airport Development

[redacted] [redacted]

[redacted]

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

The City of Livermore has asked for input from the community regarding the potential development options for the Livermore Airport as they complete the Airport Land Development Framework. The citizens of Livermore should have the predominant voice in the future development of the airport as Livermore is their home. The city mentions having focus groups with current and prospective airport users, why not a focus group of the citizens and community who will be most impacted by development of the airport?

We would like and hope that the city will maintain a small regional airport that will enhance the quality of life here in Livermore. A small regional airport is an asset to the community whereas increasing fixed-base operators (FBOs) with larger aircraft has detrimental impacts to air quality, water pollution, biodiversity loss, greenhouse gas emissions, and noise pollution. If the airport is expanded and larger aircraft are allowed to operate it will diminish the health, comfort and happiness of the citizens not to mention lower property values. Noise levels from the airport need to decrease not increase. We do not need any more jet traffic. Reduce the size and height of hangers to keep the aircraft that inhabit the airport small and noise levels reduced along with protecting the view of the surrounding hills.

The Livermore city government continues to push the boundaries with the airport and development. The airport should not be viewed as a revenue stream but an amenity that benefits the community, not something that constantly has its citizens fighting city government to maintain the character and value of their way of life.

Paul & Lori Sanborn
Livermore

Helena Graves

From: Neil Lysons [redacted]
Sent: Monday, March 18, 2024 11:32 AM
To: The Independent; AirportDevelopment; Benedict (Benny) Stuth; City Clerk; lacg@livermoreairportnoise.org; Brandon Cardwell; Livermore City Council; Angela Hescher; John Marchand; Robert Carling; Barrientos, Ben; Evan Branning; Brittni Kiick
Subject: citizens have a majority say in the future development of the airport

[redacted]

I Laurie Sargent demand that the citizens have a majority say in the future development of the airport!

[redacted]
Livermore CA 94550
[redacted]

Helena Graves

From: Neil [redacted]
Sent: Monday, March 18, 2024 11:38 AM
To: The Independent; AirportDevelopment; Benedict (Benny) Stuth; City Clerk; lacg@livermoreairportnoise.org; Brandon Cardwell; Livermore City Council; Angela Hescher; John Marchand; Robert Carling; Barrientos, Ben; Evan Branning; Brittni Kiick
Subject: demand that the citizens have a majority say in the future development of the airport

[redacted] [redacted]

[redacted]

I Christopher Lysons demand that the citizens have a majority say in the future development of the airport!

[redacted]
Livermore CA 94550
[redacted]

Helena Graves

From: john [redacted]
Sent: Monday, March 18, 2024 12:41 PM
To: AirportDevelopment; Brandon Cardwell; Benedict (Benny) Stuth; Livermore City Council; City Clerk; council@dublin.ca.gov; Pleasanton Weekly Editor; The Independent; lacg@livermoreairportnoise.org; Angela Hescher; Valerie Arkin; kbrown@cityofpleasantonca.gov
Cc: john basalyga; Teresa Basalyga
Subject: HALT Livermore Airport expansion!

[redacted] [redacted]

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

HALT Livermore Airport expansion! END Livermore's bad-faith secret, non-public behind-the scenes maneuvering! Any future airport plans are more than Livermore's sole decision, this would greatly impact Pleasanton, Dublin and the whole of the Tri-Valley area. This is a (1) noise, (2) air pollution, (3) property value and (4) quality of life issue. Stop this effort NOW!

Thank you,
John Basalyga
[redacted] Pleasanton, CA 94588

---------- Forwarded message ---------
From: **Livemore Airport Citizens Group (LACG)** <lacg@livermoreairportnoise.org>
Date: Sun, Mar 17, 2024 at 1:44 PM
Subject: Livemore Airport Land Use Meeting March 21, 4-7 PM Livermore Library -- Act Now!
To: john basalyga [redacted]

Can't see this message? View in a browser

Livermore Airport Secret Focus Groups - Land Use Call to Action

[redacted]

Livermore Airport Alert - Land Use Input by Citizens **March 21, 2024 4-7 PM,** Livermore Library.

Secret focus groups with land developers, aviation, air taxis and more have already been done.

If the Aviation / Development focus groups say they want AMAZON Cargo, or Air Taxi Service, or Large Jet planes -- then this is what the consultants will report out as what the People "want".
After pressure by public citizens, the City is taking input from Citizens:
https://www.livermoreca.gov/departments/public-works/airport/airport-land-use-analysis-development-project

You must contact the city to be heard -- or the only input are the airport developers and aviation industry who want to EXPAND THE AIRPORT.

Call to Action:
1. Attend City open house and give input to the consultants:
Date & Time: March 21, 2024, Drop-in Hours between from 4:00 – 7:30pm
Topic: Livermore Airport Land Use Analysis & Development Project
Location: Livermore Public Library Community Rooms; 1188 S. Livermore Avenue.
2. Demand specific focus groups. This is important -- or get ready for future.

BE CLEAR WHAT YOU WANT THE AIRPORT TO BE IN EMAILS TO THE CITY AS INPUT INTO THE FUTURE LAND USE:

- MORE Expansion with more JET Services?
- MORE Noise?
- MORE AIR TAXI SERVICE?
- MORE AIR CARGO SERVICE?
- MORE FBOs to attract more aviation services?

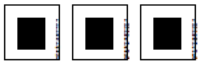
- MORE Pollution?

To:

airportdevelopment@livermoreca.gov, bwcardwell@cityoflivermore.net, bjstuth@livermoreca.gov, LivermoreCityCouncil@LivermoreCA.gov, cityclerk@livermoreca.gov, council@dublin.ca.gov , editor@pleasantonweekly.com, editor@independentnews.com , lacg@livermoreairportnoise.org , arhescher@LivermoreCA.gov, editor@independentnews.com, editor@pleasantonweekly.com, varkin@cityofpleasantonca.gov, kbrown@cityofpleasantonca.gov

Your Street Address
Your Phone Number

Share on social



Check out my website

This email was created with Wix. Discover More

This email was sent from [redacted]
If you no longer wish to receive this email, change your email preferences [redacted]

Helena Graves

From: [redacted]
Sent: Friday, March 22, 2024 11:54 AM
To: AirportDevelopment; Benedict (Benny) Stuth; City Clerk
Subject: FW: Airport Expansion

[redacted] [redacted]

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

From: [redacted]
Sent: Friday, March 22, 2024 11:48 AM
To: 'airportdevelopment@livermore.gov' <airportdevelopment@livermore.gov>; 'bwcardwell@cityoflivermore.net' <bwcardwell@cityoflivermore.net>; 'bjstuth@livermore.gov' <bjstuth@livermore.gov>; 'LivermoreCityCouncil@LivermoreCA.gov' <LivermoreCityCouncil@LivermoreCA.gov>; 'cityclerk@livermore.gov' <cityclerk@livermore.gov>; 'council@dublinCA.gov' <council@dublinCA.gov>; 'editor@pleasantonweekly.com' <editor@pleasantonweekly.com>; 'editor@independentnews.com' <editor@independentnews.com>
Subject: Airport Expansion

To All in involved,
Please, please, please do not expand the airport!!!!! Those of us living on this side of town close to the airport knowingly bought homes here with the size of the airport as it exists now. But no one who bought a house by the airport wanted any kind of jet flying in there. How much does Livermore want to grow. Enough is enough. I'm not anti growth but this directly hurts many of the Livermore citizens as it will lower the value of our homes, create too much noise, and more pollution. Once and for all will you stop thinking of all the outside business Livermore could get and consider the people you are representing.

No more expansion with jet service
No More noise than we already have
No air taxi service
No air cargo service
No FBO's to attract more aviation service (the students in the helicopters are ridiculously loud and pose danger to those of us living here, especially the schools under their path)
No more pollution

Karen Allen
[redacted]
Livermore

Helena Graves

From: Mike Vickers [redacted]
Sent: Friday, March 22, 2024 5:49 PM
To: Helena Graves
Subject: Re: No Airport Expansion 3/21/24

[redacted] [redacted]

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Yes, please include my comment. I made one correction- the word “citizens” was changed to “citizen”. Please see below.

Thank you,

Mike Vickers

Sent from my iPhone

> On Mar 22, 2024, at 1:24 PM, Helena Graves <hlgraves@livermoreca.gov> wrote:
>
> Mike Vickers,
>
> Your comments have been received. Are these comments intended to be included with the March 25, 2024 City Council Meeting Agenda under Item 4.0, Public Forum?
>
> Please confirm by 12:00 noon on Monday, March 25, 2024, if you would like them included.
>
> Sincerely,
>
> **Helena Graves**
> Deputy City Clerk | City Clerk’s Office
> 925-960-4212
> City of Livermore | www.LivermoreCA.gov
>
> <image001.png>
>
> ---
>
> **From:** Mike Vickers [redacted]
> **Sent:** Thursday, March 21, 2024 5:24 PM
> **To:** City Clerk <cityclerk@livermoreca.gov>; council@dublin.ca.gov; lacg@livermoreairportnoise.org
> **Subject:** No Airport Expansion 3/21/24

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Good afternoon,

My name is Mike Vickers. My family and I have been residents of Pleasanton for more than 27 years. I'm writing to you as a private citizen, not in my official capacity as a Pleasanton Parks and Recreation Commissioner.

I'm speaking on behalf of hundreds of people in our community that urge you to resist the temptation to expand Livermore Municipal Airport or allow cargo planes to land at the airport.

This is a quality of life issue. Air pollution, noise pollution and reduced

home property values are very real front and center issues.

Traffic impact and road safety are also important considerations if the Tri-Valley becomes a distribution hub.

No Amazon and other cargo planes.
No Air Taxi Service.
No Large Jet planes.
Yes to citizen focus groups.

///

One additional issue is leaded fuel being used for private aircrafts. Please transition to an unleaded fuel airport as soon a possible- the health of all life forms, and especially our youngest children, is at stake.

Sincerely your,

Mike Vickers

[redacted]

Pleasanton 94566

[redacted]

Helena Graves

From: Resa Arnold [redacted]
Sent: Thursday, March 21, 2024 2:13 PM
To: AirportDevelopment; Brandon Cardwell; Benedict (Benny) Stuth; Livermore City Council; City Clerk; council@dublin.ca.gov; Pleasanton Weekly Editor; The Independent; lacg@livermoreairportnoise.org; Angela Hescher; varkin@cityofpleasantonca.gov; kbrown@cityofpleasantonca.gov
Subject: Livermore Airport Expansion

[redacted] [redacted]

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

March 21, 2024

To: Whom It May Concern
Re: Community Input for Livermore Airport Expansion and Land Use

Dear Gentlemen/Ladies:
I am putting faith in the process of public comment input, both for its efficacy and value.
I am a 36 year citizen and private home owner here in Livermore. My wife and I live south of Jack London Blvd., bordered by Isabel to the West and Murrieta in the North South direction. We are in proximity to Rancho Elementary in the bird names streets, on Egret Road specifically.
Of course, 36 years ago, this location was so much open space. Isabel as a semi freeway did not exist. The business park off Discovery on the back side of the airport did not exist…including the Gillig plant and all those large warehouses added in recent years.
Growth is to be expected to a degree. Those folks in that business park had to amend some of their practices including sound abatement for delivery and back up alerts all hours of the night. And, they respectively did.
We have certainly seen many changes in the local airport, enjoyed the many airshows, i.e. Wings of Charity, antique aircraft displays, and enjoyment of the new dining facilities (Elevation) during these many years.
However, as we live in the flight path on many days of the year, we have grown increasingly disturbed by both the flight noise, constant touch and goes, low flight patterns, bombardment of particulates in the airspace over our home of unspecified non-environmentally friendly leaded fuel, etc. Sitting in our backyard, we can no longer expect quiet enjoyment or even reasonable quiet enjoyment.
Conversation is halted and irritation is increased as we are exposed to one loud assault after the next. Now, larger jets of mixed use add to the early morning wake up calls we are enduring. The rumbling is not pleasant, so we are forced to use sound machines to drown out the thunderous noise.
You folks want to add to this by allowing larger commercial hangers, carriers, air taxi service and possibly drone deliveries based from the airport?
Sincerely, I ask…how many of you are living in the nearby area to REALLY experience what this means as it is played out in everyday lives?.
This is or was an outlying rural atmosphere town. What are you wanting to turn it into…a San Jose?
We vehemently object to that agenda and so consider this a no vote from this family for your expansion proposals…except the addition of reconfiguring to accommodate unleaded fuels that should be mandatory.

I'll thank you in advance for your serious consideration of these comments. I speak for many who feel the same but did not write. Hard to fight City Hall!
Please keep us updated as to any meetings or further focus groups
so that we be given the voice to help keep this beautiful area liveable.
James and Resa Arnold ++Livermore

Helena Graves

From: teresa basalyga [redacted]
Sent: Thursday, March 21, 2024 9:56 AM
To: AirportDevelopment; Brandon Cardwell; Benedict (Benny) Stuth; Livermore City Council; City Clerk; council@dublin.ca.gov; Pleasanton Weekly Editor; The Independent; lacg@livermoreairportnoise.org; Angela Hescher; Valerie Arkin; kbrown@cityofpleasantonca.gov
Subject: HALT Livermore Airport expansion!

[redacted] [redacted]

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Hello Good People,

HALT Livermore Airport expansion! END Livermore's bad-faith secret, non-public behind-the scenes maneuvering! Any future airport plans are more than Livermore's sole decision, this would greatly impact Pleasanton, Dublin and the whole of the Tri-Valley area.

Our communities do not need or want an increase in noise or air pollution. The airport greatly impacts our quality of life in Pleasanton. It is difficult to have our windows open because the noise of the airplanes is so very loud. Please think of the children and elderly with breathing issues. Please do not do this to the Tri-Valley.

Please STOP this effort NOW!

Thank you,
Teresa Basalyga
[redacted] Pleasanton
[redacted]

Helena Graves

From: Pam Deaton Fiala [redacted]
Sent: Sunday, March 24, 2024 2:54 PM
To: AirportDevelopment; Livermore City Council
Cc: City Clerk; LA CG; Valerie Arkin
Subject: Livermore Airport Land Use Analysis & Development Study Input

[redacted] [redacted]

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

As 31-year residents of the Tri-Valley, we are especially interested in the future development of the Livermore Municipal Airport. In recent years, we have actively voiced our concerns over the continued desire to expand the use of this small regional airport. The discussions about this expansion continue to be quietly organized disregarding any input from the Tri-Valley community residents who are directly impacted by changes to the airport. The safety and financial future of the Tri-Valley requires all of the valley (Livermore, Pleasanton and Dublin) to work together for a healthy and successful future.

The recent focus groups which were quietly held by the Airport Management consultants with local aviation companies and developers failed to include any local residents' comments. We are very fortunate that the community is closely watching the airport management's actions and demanded an opportunity for the public to comment on the future development of the airport. This lack of transparency adds to our concerns about the on-going changes secretly planned at the airport.

We were not able to participate at the March 21, 2024 public focus group due to illness but understand from those who participated that the consultants were not present and the City staff had limited information on airport concerns and issues. There were no newspaper articles in the local papers promoting participation in this community focus group which adds to the lack of transparency and a lack of interest in including the residents. The Tri-Valley impact of expanding the airport with more air traffic including larger jets has a direct long-term impact on all Tri-Valley residents.

In the Independent Newspaper dated March 21, 2024, which arrived to our house before the focus group, Pete Sandhu, owner of Five Rivers Aviation, is quoted as saying in the article about Livermore's acquisition of more land near the airport "I'm working with aviation companies that need more R&D space, and some of their projects need direct access to the runway and some of them don't. I think ZeroAvia, Verne, and Apricus might consider building something on that property." Clearly, discussions and decisions are already being made on who is going to be part of

the airport expansion and how the land will be developed. Providing a community focus group when decisions have already been made is really a joke and insulting to the community at large.

Our input for future use of the Livermore Municipal Airport is the following:

- The first priorities should be to focus on the on-going current issues such as low flying jets, airport noise, and use of unleaded fuel which are concerning to many residents.

- Keep the original vision of the airport as a small regional airport for small recreational planes.

- Do not expand the use of private jets which regularly fly over our homes in Pleasanton at low attitude as they take off or land. Why is luxury jet traffic by a small exclusive group permitted at the Livermore airport given that common wind conditions force jets to fly very low for extended distances over residential neighborhoods and schools?

- Focus on safety issues around the current jet traffic which has continued to increase and caused noise and air pollution concerns for our community as well as others living in the Tri-Valley.

- Re-examine with the FAA the current flight patterns to reduce the need to fly over homes, schools, and community areas at such low altitudes. The Vasco area which has few homes should be discussed as a possible flight pattern.

- Continued focus on strategies such using unleaded fuel to improve the air quality for tri-valley residents. We appreciate that this is slowly moving forward but do not understand as also noted in The Independent Editorial, why it can't be a priority achieved sooner.

- Develop an active Tri-Valley airport commission (Livermore, Pleasanton, Dublin reps) that provides input and action steps to the municipal airport and the Livermore City Council so that planning is done together and successfully instead of in unannounced meetings which lack transparency and create mistrust. This type of Tri-Valley planning is done on other important valley issues such has transportation and is very successful. Consensus building is the key!

We understand that life does change and we must plan carefully as a valley to make good decisions so that there are positive outcomes for all. So far with the planning of changes for the Livermore Municipal Airport we have not seen this done. We urge that a Tri-Valley approach with safety and consensus building be considered as you move forward.

David and Pam Fiala
[redacted]
Pleasanton
[redacted]

CITY OF LIVERMORE CALIFORNIA

INTEROFFICE MEMORANDUM

Date: March 25, 2024

To: Honorable Mayor and City Council Members

From: Marie Weber, Deputy City Manager

Subject: Item 5.6 – 2024 City of Livermore State and Federal Legislative Platform

The redlined draft of the 2024 City of Livermore Legislative Platform (Attachment 1) and Exhibit A to the Resolution have been updated to include additional language related to the City's bonus density stance to include "that density bonus incentives, concessions, and waivers cannot be used to reduce the quantity of required affordable units."

City of Livermore
2024~~43~~ State and Federal Legislative Platform

(DRAFT)

CITY OF
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CALIFORNIA

The City of Livermore ("City") 2024~~3~~ State and Federal Legislative Platform ("Platform") highlights the position of the City Council on important issues that align with community goals and policy documents such as the General Plan. City staff monitor bills introduced into the California Legislature and United States Congress. The Platform provides staff direction and allows the City, on the City Council's behalf, to respond quickly in support of or opposition to bills and other legislative or administrative actions in time-sensitive situations. The City Council delegates its authority to the mayor to sign support or opposition letters, consistent with the Platform. Additionally, the Platform enables staff to communicate on behalf of the City to state legislators and federal elected officials.

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The 2024~~3~~ City of Livermore Platform categories are:

- Community-Focused Governance
- Fiscal Stability
- Affordable Housing and Homelessness
- Planning and Sustainability
- Building Safety
- Infrastructure
- Job Creation and Economic Development
- Libraries
- Public Safety and Emergency Management
- Science, Technology, and Innovation
- Transportation and Parking
- Water

The State and Federal Legislative Platform evolves as City needs adjust, new issues arise, and conditions at the regional, state, and federal level change. Platform adjustments, whether due to federal policy changes or state policy reactions, may be considered at a future City Council meeting or at the next annual review in 2025~~4~~.

Once approved by the City Council, the 2024~~3~~ State and Federal Legislative Platform will be posted on the City's website at www.LivermoreCA.gov/Legislation. Staff also provides the City Council with periodic updates on letters sent, bill progress, and legislative developments.

When appropriate, the City of Livermore joins its Tri-Valley neighbors to advocate for issues and funding at the regional, state, and federal levels. The cities of Livermore, Dublin, Pleasanton, San Ramon, and the town of Danville develop a Tri-Valley Cities Legislative Framework. The Tri-Valley Framework overlaps many of the items in the City's Platform and provides another opportunity for advocacy progress and success.

The Tri-Valley Cities Legislative Framework is available to view at www.LivermoreCA.gov/Legislation.

Community-Focused Governance

The City values its ability to create policies that best fit the needs of the Livermore community. It is important to advocate for state legislation the provides framework guidance and allows local implementation.

1. **Support** legislation that enhances or streamlines local governance and allows cities to address the needs of local constituents within a framework of regional cooperation.

2. **Monitor** legislation that affects the ability of City Council to effectively govern.

3. **Monitor** cannabis-related legislation.

4. **Oppose** legislation that would prohibit or limit local governments' ability to contract out for services.

5. **Support** legislation that updates both the Brown Act and Public Records Act regarding electronic records and activities that support local decision-making without significant fiscal impact and new regulations that require staff resources.

6. **Oppose** legislation that requires or expands state involvement in City financial audits, fiscal monitoring, general oversight, or assistance by the State Treasurer, State Controller, or other state agencies.

7. **Support** a wording change in the Communications Act of 1934 that removes the distinction between "capital" and "operating" funds in order to provide more local control for community television stations in the use of their public, educational and government (PEG) channel fees with no rise in taxes or a reduction in revenue to the cable industry.

Fiscal Stability

Fiscal stability and financial independence are necessary to provide desired services and programs for residents and local businesses. City Council policy decisions direct staff to ensure the City's long-term financial stability. Unexpected diversion of local funds by the state or federal government erodes the ability of a city to plan and budget for short-and-long term service needs.

1. **Oppose** legislation that imposes unfunded or inadequate state or federal mandates.

2. **Support** legislation that updates the tax structure to enhance local government revenues that have declined due to the expansion of e-commerce, increased

consumption of services rather than durable goods, and innovations in technology.

3. **Oppose** legislation that reduces local government's ability to levy fees

4. **Monitor** legislation regarding new fees or other revenue-enhancements.

5. **Oppose** legislation that reduces or eliminates payments to cities for use of property and rights-of-way for telecommunications.

6. **Support** legislation that provides sustainable and secure public pensions and other post-retirement benefits to ensure responsive and affordable public services.

7. **Support** legislation that streamlines the Workers' Compensation system.

8. **Oppose** legislation that would remove the federal tax exemption for municipal bonds.

Affordable Housing and Homelessness

The availability of a suitable living environment is essential to quality-of-life. It is important to support adequate and affordable housing opportunities and housing-related service needs.

1. **Support** regional solutions that balance housing, transportation/transit, and jobs together. Building housing without adequate transportation infrastructure may exacerbate, not alleviate, the affordable housing crisis.

2. **Support** legislation that protects existing affordable housing stock, including rental apartments, deed-restricted units, and mobile homes, and promotes affordable housing that includes long-term affordability agreements.

3. **Support** legislation that ensures: 1) incentives and density bonus provisions are directly linked to the level and percentage of affordable units provided for each project; and 2) that density bonus incentives, concessions, and waivers cannot be used to reduce the quantity of required affordable units.

4. **Support** legislation that enables cities to develop locally appropriate plans that meet state objectives in a manner that is compatible with existing community character.

5. **Support** legislation that facilitates accessory dwelling units and encourages development of "missing-middle" housing that is compatible with suburban community character.

6. **Oppose** housing legislation that is not accompanied by funding that can support expanded transportation, transit, and infrastructure, including planning, and capital improvement programs and funding to support new school facilities.

7. **Oppose** housing legislation that results in a net loss of local funding.

8. **Support** housing legislation that promotes the development and enhancement of a diverse workforce, as long as the legislation does not create an unfunded mandate or conflict with local land use authority and financial stability.

9. **Oppose** housing legislation that unduly impacts local taxation capacity or diverts financial resources from essential local public services and infrastructure programs.

10. **Support** legislation that increases financial assistance to cities, non-profit organizations, and local partnerships to provide affordable, transitional, special needs, and emergency housing to the homeless, seniors, veterans, and people with special needs.

11. **Support** legislation that increases financial assistance to cities, non-profit organizations, and local partnerships to provide and promote self-empowerment for homeless individuals or families through counseling, job training, and other related services.

12. **Support** legislation that provides financial assistance, improved access to, and expansion of health care, mental health, and drug addiction services for low income and homeless individuals.

13. **Support** legislation that removes fair housing barriers and prevents displacement.

Planning and Sustainability

The City prioritizes comprehensive land use planning that creates complete neighborhoods, promotes a jobs/housing match, strengthens Livermore's economic and fiscal base, provides housing choice, promotes local control with public input, streamlines the permitting process, conserves wildlands, promotes environmental stewardship while reducing the City's environmental footprint, and generally improves the community's quality of life. ~~Comprehensive land use planning coupled with environmental stewardship, such as mandatory reductions in greenhouse gases, emissions, solid waste generation, and energy consumption are vital to a community's quality of life.~~

1. **Oppose** legislation that diminishes cities' decision-making authority over land use decisions, ~~or~~ zoning, or permit process and timelines.

2. **Support** legislation preserving or enhancing the federal Community Development Block Grant (CDBG) program.

3. **Support** land use patterns that maintain safe ~~residential~~ neighborhoods, bolster

economic prosperity, provide local jobs, preserve open space, protect the environment, and enhance overall quality of life.

4. **Oppose** state or federal efforts to further erode local government authority regarding the location or permit review of small cell wireless equipment, cellular towers, transmission sites, or other devices on public infrastructure or in the public right of way.

5. **Support** funding and incentives for smart growth and sustainable development.

6. **Support** CEQA-reform legislation that improves the cost-effective and timely delivery of projects and decreases the ability for spurious lawsuits.

7. **Support** RHNA- and APR-reform legislation that adequately provides necessary housing while reducing municipal administrative burden.

8. Support tax rebate programs, like the Williamson Act or Mills Act, to promote agriculture, open space preservation, historic preservation, and good design.

9. **Support** legislation or grant opportunities for cities that provide funding for developing or enhancing alternative vehicle fueling stations.

10. **Support** rebate programs, tax credits, and other financial incentives that encourage property owners to invest in energy efficiency and renewable energy systems, greenhouse gas-reducing technology, and alternative vehicle fueling stations in parking areas.

11. **Monitor** state and federal legislation related to climate adaptation.

12. **Support** measures that increase funding to local governments for landfill diversion programs such as food recovery, composting, and recycling.

13. **Support** Extended Producer Responsibility (EPR) legislation to encourage manufacturers to design environmentally friendly products by holding producers responsible for the costs of managing their products at end of life.

Building Safety

The City prioritizes protection of public health, safety and welfare by proper building design and construction practices.

1. **Support** legislation that increases the safety of buildings, reduces potential hazards and protects against fire and structure collapse.

2. **Support** legislation for seismic earthquake retrofits to protect individuals and structures.

3. **Support** legislation that contributes to the quality and durability of construction methods and materials

4. ~~**Monitor**~~ **Oppose** legislation to restrict number of inspections needed to verify safety of the built environment and other components.

5. **Support** measures to streamline photovoltaic and electrical vehicle charging permitting and installation.

6. **Support** legislation that contributes to the wellbeing of a community, preservation of life safety, and property maintenance.

7. **Support** legislation that promotes barrier removal and sustainable practices in the built environment.

8. **Oppose** legislation that establishes unrealistic timeliness for building project review that will potentially create an unsafe built environment.

Infrastructure

The condition of a city's infrastructure affects the community's quality-of-life. Sewer and water systems, sidewalks, and roads are subject to a wide number of regulations and must be maintained or replaced to ensure the health of the community.

1. **Support** state and federal legislation that would expand connectivity and access to digital resources.

2. **Oppose** legislation regarding infrastructure such as sidewalk repair that increases a city's unfunded infrastructure liability.

3. **Support** state and federal legislation that provides additional funding and/or preferred financing for local critical unmet infrastructure needs.

4. **Support** legislation that reduces or streamlines state and federal permitting requirements.

5. **Support** legislation that enhances the reliability of water transmission and storage through the Delta to the Tri-Valley.

6. **Support** legislation that provides new funding methods for flood control and stormwater management.

7. **Support** legislation that would acknowledge an adopted California Environmental Quality Act (CEQA) document can be substituted for a federal National Environmental Protection Agency (NEPA) document for infrastructure projects.

8. **Monitor** legislation that alters the state's agency permitting requirements and how they impact the timeliness and viability of natural resource projects planned by government agencies and special districts at the local and regional level including Fish and Game endowments.

Job Creation and Economic Development

The City encourages and supports business through strategic economic development initiatives. Fostering a strong business environment requires job creation, educational opportunities, and workforce development programs.

1. **Support** legislation that enhances or expands community and economic development tools and funding to address development and revitalization needs.

2. **Support** legislation or grants that focus on downtown development.

3. **Support** legislation that promotes and funds workforce development and re-training efforts focused on high-skilled jobs required by emerging industries.

4. **Support** legislation that encourages entrepreneurship, facilitates resource-sharing models, or otherwise reduces barriers to entry for small business.

5. **Support** legislation that provides insurance or loan guarantees for small business loans during recessionary periods.

6. **Support** legislation or grants that focus on walkable, transit oriented, and complete districts with access to jobs and services.

Libraries

The Livermore Public Library connects people with information and education, and inspires experiences that support lifelong learning, personal growth, and enhanced quality of life. With strong community support, the Library offers programs, materials, materials, and services most valued by residents.

1. **Support** legislation that increases financial assistance to cities to ~~provide~~ fund and promote local library programs and literacy services.

2. **Support** legislation that seeks to close the digital divide through funding local library~~ies~~ efforts to ~~such a way they~~ provide broadband internet and ~~devices~~ technology through devices such as hotspots, computers, and tablets, for community members to access.

3. **Support** legislation and funding efforts relating to early literacy, school readiness, adult literacy, career development, vocational support, and assistance to vulnerable and under-served populations.

4. **Oppose** censorship and efforts to limit the public's intellectual freedom and access to information and resources.

5. **Support** the enhancement of inclusivity, efforts to offer open and unfettered access to information, ~~and~~ the exchange of ideas, and the welcoming of all people to express themselves regardless of their politics or beliefs.

6. **Support** legislation that fosters growth during the transformation of libraries and library services in a dynamic and increasingly global digital information environment.

7. **Support** legislation that protects the privacy of patrons and their associated library records and data.

8. **Support** legislation that enhances equitable, diverse, and inclusive initiatives and opportunities.

Public Safety and Emergency Management

Effective public safety significantly enhances a community's quality-of-life. Maintaining a strong safety presence requires ongoing local, regional, state, and federal support.

1. **Support** legislation and grants that fund police and fire equipment upgrades, training, and capital improvements.

2. **Support** legislation that promotes and funds emergency management and recovery efforts.

3. **Support** legislation that maintains and increases grant funding for the Community Oriented Police Services (COPS) hiring program.

4. **Monitor** legislation pertaining to unmanned aircrafts (drones) and Federal Aviation Administration regulations.

5. **Support** legislation to increase penalty for prohibited persons in possession of firearms and use of firearms in the commission of a crime.

6. **Support** legislation that penalizes individuals who engage in drug and/or distracted driving activities.

7. **Support** legislative efforts to address the negative impacts of Proposition 47 (Reduced Penalties for Some Crimes, 2014) and Proposition 57 (Parole for Non-Violent Criminals and Juvenile Court Trial Requirements Initiative, 2016) and provide local law enforcement with tools to reduce criminal activity.

8. **Support** legislation that would provide funding and increase access to mental health care, response to mental health related calls for service, and drug/ alcohol treatment programs.

Science, Technology, and Innovation

As the only City in the United States with two national laboratories, science, technology, and innovation play an important role in the Livermore economy, workforce, and community values. Additionally, the City partnership with the labs and i-GATE fosters innovation, job creation, and economic development opportunities.

1. **Support** legislation that advances or encourages innovation, entrepreneurship, start-ups, small business opportunities, and/or workforce development.

2. **Support** legislation that encourages the expansion of STEM (Science, Technology, Engineering, and Mathematics) programs in K-12, higher education, libraries, and community-based organizations.

3. **Support** legislation that encourages and supports the transfer of technology from the national laboratories.

4. **Support** legislation that provides competitive grants, state partnerships, or other resources to encourage innovation and the science, technology, and innovation economies.

5. **Support** legislation that improves the abilities of the federal laboratories to update or expand their infrastructure.

Transportation and Parking

Regional and local transportation play a key role in a community's economic vitality and quality-of-life.

1. **Support** legislation that reduces congestion along Tri-Valley area freeways or reduces truck traffic along I-580 through roadway or rail improvements.

2. **Support** legislation that enhances the ability of local agencies to finance local transportation programs and facilities.

3. **Support** legislation that facilitates connectivity between major regional rail/transit systems.

4. **Support** legislation that provides incentives for rail and multimodal transit stations and transit-oriented development projects.

5. **Oppose** legislation mandating "one-size-fits-all" parking space requirements for future housing, entertainment, or retail developments or impinging on how parking spaces can be used.

6. **Support** legislation that provides incentives for shared public/private partnerships.

7. **Monitor** legislation that defines "high quality transit" for purposes of transit-oriented development as anything with service headways above hourly. Review on case-by-case basis to determine any impacts and/or benefits.

8. **Support** legislation to encourage the sale of unleaded fuel and assistance to pilots for Supplemental Type Certificate acquisition for non- American Society for Testing and Materials unleaded fuels at airports nationwide.

Water

Water, both quantity and quality, is essential to residential quality-of-life as well as agricultural and economic vitality and growth.

1. **Oppose** legislation that imposes a state tax or fee on customers of a public water system for drinking water.

2. **Monitor** legislation developing new water conveyance systems such as peripheral canals or tunnels (as mentioned in the proposed Bay Delta

Conservation Plan) to deliver adequate water to the Tri-Valley and the Silicon Valley.

3. **Support** legislation that expands the production and use of recycled water or increases local control of water supplies.

4. **Oppose** legislation that expands statewide mandatory water conservation and/or rationing unless the conservation measures are triggered in response to specific local water supply conditions.

5. **Support** legislation that allows direct and indirect potable water reuse.

6. **Oppose** legislation that allows the State Water Resources Control Board or Regional Water Quality Control Board to establish more stringent, clean water objectives unless the legislation provides a demonstrated water quality benefit as well as the means for jurisdictions to achieve the objectives.

7. **Support** regulations to protect drinking water from the impacts of hydrological fracturing (hydro-fracking) related to oil and gas exploration and extraction.

8. **Support** legislation and programs that make water, sewer, and/or storm services more affordable for customers.

City of Livermore
2024 State and Federal Legislative Platform

(DRAFT)

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4. **Oppose** legislation to restrict number of inspections needed to verify safety of the built environment and other components.

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8. **Oppose** legislation that establishes unrealistic timeliness for building project review that will potentially create an unsafe built environment.

Infrastructure

The condition of a city's infrastructure affects the community's quality-of-life. Sewer and water systems, sidewalks, and roads are subject to a wide number of regulations and must be maintained or replaced to ensure the health of the community.

1. **Support** state and federal legislation that would expand connectivity and access to digital resources.

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5. **Support** legislation that enhances the reliability of water transmission and storage through the Delta to the Tri-Valley.

6. **Support** legislation that provides new funding methods for flood control and stormwater management.

7. **Support** legislation that would acknowledge an adopted California Environmental Quality Act (CEQA) document can be substituted for a federal National Environmental Protection Agency (NEPA) document for infrastructure projects.

8. **Monitor** legislation that alters the state's agency permitting requirements and how they impact the timeliness and viability of natural resource projects planned by government agencies and special districts at the local and regional level including Fish and Game endowments.

Job Creation and Economic Development

The City encourages and supports business through strategic economic development initiatives. Fostering a strong business environment requires job creation, educational opportunities, and workforce development programs.

1. **Support** legislation that enhances or expands community and economic development tools and funding to address development and revitalization needs.

2. **Support** legislation or grants that focus on downtown development.

3. **Support** legislation that promotes and funds workforce development and re-training efforts focused on high-skilled jobs required by emerging industries.

4. **Support** legislation that encourages entrepreneurship, facilitates resource-sharing models, or otherwise reduces barriers to entry for small business.

5. **Support** legislation that provides insurance or loan guarantees for small business loans during recessionary periods.

6. **Support** legislation or grants that focus on walkable, transit oriented, and complete districts with access to jobs and services.

Libraries

The Livermore Public Library connects people with information and education, and inspires experiences that support lifelong learning, personal growth, and enhanced quality of life. With strong community support, the Library offers programs, materials, materials, and services most valued by residents.

1. **Support** legislation that increases financial assistance to cities to fund and promote local library programs and literacy services.

2. **Support** legislation that seeks to close the digital divide through funding local library efforts to provide broadband internet and technology through devices such as hotspots, computers, and tablets, for community members to access.

3. **Support** legislation and funding efforts relating to early literacy, school readiness, adult literacy, career development, vocational support, and assistance to vulnerable and under-served populations.

4. **Oppose** censorship and efforts to limit the public's intellectual freedom and access to information and resources.

5. **Support** the enhancement of inclusivity, efforts to offer open and unfettered access to information, the exchange of ideas, and the welcoming of all people to express themselves regardless of their politics or beliefs.

6. **Support** legislation that fosters growth during the transformation of libraries and library services in a dynamic and increasingly global digital information environment.

7. **Support** legislation that protects the privacy of patrons and their associated library records and data.

8. **Support** legislation that enhances equitable, diverse, and inclusive initiatives and opportunities.

Public Safety and Emergency Management

Effective public safety significantly enhances a community's quality-of-life. Maintaining a strong safety presence requires ongoing local, regional, state, and federal support.

1. **Support** legislation and grants that fund police and fire equipment upgrades, training, and capital improvements.

2. **Support** legislation that promotes and funds emergency management and recovery efforts.

3. **Support** legislation that maintains and increases grant funding for the Community Oriented Police Services (COPS) hiring program.

4. **Monitor** legislation pertaining to unmanned aircrafts (drones) and Federal Aviation Administration regulations.

5. **Support** legislation to increase penalty for prohibited persons in possession of firearms and use of firearms in the commission of a crime.

6. **Support** legislation that penalizes individuals who engage in drug and/or distracted driving activities.

7. **Support** legislative efforts to address the negative impacts of Proposition 47 (Reduced Penalties for Some Crimes, 2014) and Proposition 57 (Parole for Non-Violent Criminals and Juvenile Court Trial Requirements Initiative, 2016) and provide local law enforcement with tools to reduce criminal activity.

8. **Support** legislation that would provide funding and increase access to mental health care, response to mental health related calls for service, and drug/ alcohol treatment programs.

Science, Technology, and Innovation

As the only City in the United States with two national laboratories, science, technology, and innovation play an important role in the Livermore economy, workforce, and community values. Additionally, the City partnership with the labs and i-GATE fosters innovation, job creation, and economic development opportunities.

1. **Support** legislation that advances or encourages innovation, entrepreneurship, start-ups, small business opportunities, and/or workforce development.

2. **Support** legislation that encourages the expansion of STEM (Science, Technology, Engineering, and Mathematics) programs in K-12, higher education, libraries, and community-based organizations.

3. **Support** legislation that encourages and supports the transfer of technology from the national laboratories.

4. **Support** legislation that provides competitive grants, state partnerships, or other resources to encourage innovation and the science, technology, and innovation economies.

5. **Support** legislation that improves the abilities of the federal laboratories to update or expand their infrastructure.

Transportation and Parking

Regional and local transportation play a key role in a community's economic vitality and quality-of-life.

1. **Support** legislation that reduces congestion along Tri-Valley area freeways or reduces truck traffic along I-580 through roadway or rail improvements.

2. **Support** legislation that enhances the ability of local agencies to finance local transportation programs and facilities.

3. **Support** legislation that facilitates connectivity between major regional rail/transit systems.

4. **Support** legislation that provides incentives for rail and multimodal transit stations and transit-oriented development projects.

5. **Oppose** legislation mandating "one-size-fits-all" parking space requirements for future housing, entertainment, or retail developments or impinging on how parking spaces can be used.

6. **Support** legislation that provides incentives for shared public/private partnerships.

7. **Monitor** legislation that defines "high quality transit" for purposes of transit-oriented development as anything with service headways above hourly. Review on case-by-case basis to determine any impacts and/or benefits.

8. **Support** legislation to encourage the sale of unleaded fuel and assistance to pilots for Supplemental Type Certificate acquisition for non- American Society for Testing and Materials unleaded fuels at airports nationwide.

Water

Water, both quantity and quality, is essential to residential quality-of-life as well as agricultural and economic vitality and growth.

1. **Oppose** legislation that imposes a state tax or fee on customers of a public water system for drinking water.

2. **Monitor** legislation developing new water conveyance systems such as peripheral canals or tunnels (as mentioned in the proposed Bay Delta

Conservation Plan) to deliver adequate water to the Tri-Valley and the Silicon Valley.

3. **Support** legislation that expands the production and use of recycled water or increases local control of water supplies.

4. **Oppose** legislation that expands statewide mandatory water conservation and/or rationing unless the conservation measures are triggered in response to specific local water supply conditions.

5. **Support** legislation that allows direct and indirect potable water reuse.

6. **Oppose** legislation that allows the State Water Resources Control Board or Regional Water Quality Control Board to establish more stringent, clean water objectives unless the legislation provides a demonstrated water quality benefit as well as the means for jurisdictions to achieve the objectives.

7. **Support** regulations to protect drinking water from the impacts of hydrological fracturing (hydro-fracking) related to oil and gas exploration and extraction.

8. **Support** legislation and programs that make water, sewer, and/or storm services more affordable for customers.

2023 Housing Element Annual Progress Report

City Council

March 25, 2024

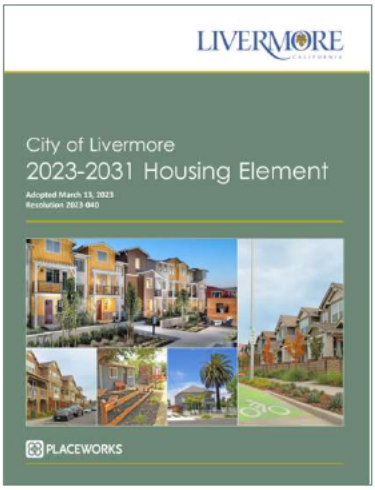
Presented by:

Shannon Pagan, Assistant Planner

1

Housing Element Annual Progress Report

- Annual Progress Report tracks progress meeting the goals and objectives in the City's Housing Element
- First year implementing the 2023-2031 Housing Element adopted on March 13, 2023, certified by HCD on March 24, 2023
- Filing the report is required by State law and maintains the City's eligibility for grant programs
- Due to the State by April 1st



LIVERMORE

2

APR Reporting Requirements

- Building permits issued by income level to demonstrate progress meeting RHNA
- Progress implementing housing programs
- Housing units proposed, approved, and constructed by income level
- Housing units developed pursuant to streamlining provisions
- Sites rezoned to accommodate RHNA
- Surplus property central inventory
- Housing units constructed with a commercial development bonus
- Above moderate units converted to moderate units
- Lower income student housing units approved under a density bonus
- Status of projects that received LEAP funding

LIVERMORE CALIFORNIA

3

Regional Housing Needs Allocation (RHNA)

Income Category	Percent of Median Family Income	Income Range – 4-Person Household	Livermore's RHNA Allocation 2023-2031
Very Low	50% or less	≤ $71,400	1,317
Low	51% to 80%	$71,401 - $109,600	758
Moderate	81% to 120%	$109,601 - $171,350	696
Above Moderate	More than 120%	> $171,350	1,799
		Total	**4,570**

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4

RHNA Progress

Income Category	2023-2031 RHNA 6th Cycle Allocation	Projection Period (June 30, 2022 – Jan 30, 2023)	2023 (Jan 31 – Dec 31, 2023)	2024 through 2031	Total Units	Remaining RHNA
Very Low	1,317	--	--	--	--	1,317
Low	758	--	--	--	--	758
Moderate	696	34	46	--	80	616
Above Moderate	1,799	21	21	--	42	1,757
Total	**4,570**	**55**	**67**	--	**122**	**4,448**

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5

Housing Programs

- Implement inclusionary ordinance requiring 10-20% of units to be affordable
- Encourage accessory dwelling units
- Provide housing assistance to residents
- Leverage local housing trust funds to acquire, construct, and preserve new affordable units
- Help fund non-profits that provide supportive services
- Implement programs to reduce homelessness

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6

Arroyo Vista Neighborhood Plan

Arroyo Vista Development
Under Construction in Summer 2024

- 435 for-sale units including 52 affordable units

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7

Isabel Neighborhood Specific Plan

Triad West
Under Construction

- 112 for-sale condos including 22 affordable units

Triad East
Approved

- 172 for-sale condos including affordable units

8

Isabel Neighborhood Specific Plan

Shea 2b Condominiums

Under Construction

- 89 for-sale condominiums including 18 affordable units

Shea 2b Apartments

Application Under Review

- 210 for-rent units including 42 affordable units

9

Isabel Neighborhood Specific Plan

Shea 2a (Aura)

Application Under Review

- 164 for-sale townhomes including 33 affordable units

Harridge Development

Application Under Review

- 1,261 units including 315 affordable units
- Commercial space, parks, public plazas, art, bike/ped/transit connections

10

Other Residential Development

Pacific Avenue
Application Under Review

- 115 for-sale units including 23 affordable units

Church Street Apartments
Approved

- 36 for-rent units

LIVERMORE CALIFORNIA

11

Senior Housing and Housing with Special Services

Assisted Living at the Well
Approved

- 84 assisted living suites
- 44 memory care suites

Vineyard 2.0
Construction Complete/Open

- 23 units of permanent supportive housing
- Supportive services center

LIVERMORE CALIFORNIA

12

Recommendation

Staff recommends the City Council adopt a resolution accepting the 2023 Housing Element Annual Progress Report.

LIVERMORE CALIFORNIA

13

Permanent Local Housing Allocation (PLHA) 2019-2023 Plan Amendment

03/25/2024

Presented by Natalia Gilina, Housing Administrative Technician

CITY OF LIVERMORE CALIFORNIA

1

PLHA Grant Requirements

- The City is an entitlement recipient of Permanent Local Housing Allocation (PLHA) program funds from the State of California Department of Housing & Community Development (CA HCD). The total estimated award for the 5-year plan is up to $1,251,240.
- On November 14, 2022, City Council adopted a five-year PLHA plan and approved an application to CA HCD for 2019-2021 PLHA allocations for two plan activities: Supportive Shared Housing Rehabilitation and Vineyard's Resource Center navigation and operating subsidies.
- CA HCD requires 5-year Plan amendment to reallocate 2020 funding between two activities.
- On December 29, 2023, CA HCD issued a Notice of Funding Availability (NOFA) for 2022-23 PLHA funding applications.

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2

PLHA Completed Activities

Adopted uses for 2019 – 2020 funding

Supportive Housing Rehabilitation

- 2019 PLHA funds were used to provide loans for the rehabilitation projects to Tri-Valley REACH for:
  - Colgate Rehabilitation project (completed in 2023);
  - Camden Rehabilitation and Expansion project (completed in 2024)
  - 2019 PLHA funds expended - $208,540
- 2020 PLHA funds were budgeted for these purposes, but no additional projects have been identified.
- Funds for 2020 need to be reprogrammed for other activities.

Colgate Rehab Project

Camden Expansion Project

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3

PLHA Current 2019-2023 Plan

- Reallocate 2020 funds (highlighted) from the current Shared Housing Rehabilitation Program to other activities that assist Vineyard operations and support persons experiencing homelessness.

PLHA Activity / Funding Year	2019	2020	2021	2022	2023	Total
Shared Housing Rehabilitation	**$208,540 (Spent)**	**$307,930**	--	--	--	$516,470
Vineyard 2.0 Operations/ Navigation Center	--	--	$338,867	$169,841	$173,927	$682,635
Total	**$208,540**	**$307,930**	**$338,867**	**$169,841**	**$173,927**	**$1,199,105**

CITY OF LIVERMORE CALIFORNIA

4

PLHA Amended Plan

- Staff recommends City Council approve activities to be funded with 2020 – 2023 PLHA funding.
- Activities include Vineyard housing navigation, rental assistance, expanded overnight shelter operations at Vineyard and rental assistance for unsheltered persons through City Serve.
- Designate 2022-2023 applications for the stated above activities.

PLHA Activity/Funding Year	2019	2020	2021	2022	2023	Total
Shared Housing Rehabilitation Program	$208,540 (Spent)	--	--	--	--	$208,540
Vineyard Shelter Operations/Housing Navigation/Rental Assistance (HCEB, Open Heart Refuge, City Serve)	--	$307,930	$267,527	$134,085	$137,311	$846,853
Activity Total	$208,540	**$307,930**	**$267,527**	**$134,085**	**$137,311**	**$1,055,393**

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5

PLHA Proposed Activities

Vineyard Housing Resource Center & Rental Assistance

Opened doors in January 2024 and currently assisting the homeless population providing:

- Shower and laundry services
- Hot meals
- Open Heart Refuge 20-bed overnight shelter operated by Open Heart Kitchen

Additional funding for much-needed seven-day per week Open Heart Refuge shelter operations, Housing Navigation, and Rental Assistance programs may be provided by Plan amendment and reallocation of 2020-2023 PLHA funds to the stated plan activity.

Open Heart Kitchen

Open Heart Refuge

CITY OF LIVERMORE CALIFORNIA

6

Recommendation

Staff recommends the City Council adopt two resolutions:

1. Authorizing, Approving, and adopting an amended Permanent Local Housing Allocation (PLHA) Plan for 2019-2023;
2. Authorizing the City Manager to execute the PLHA program application for the 2023 PLHA Notice of Funding Availability (NOFA), the PLHA standard agreement, and any subsequent amendments or modifications thereto, as well as any other documents that are related to the PLHA program or the PLHA grant awarded to the City of Livermore;
3. Authorizing the City Manager to accept and appropriate the allocations for the amended PLHA plan, if awarded, and directing the City Manager, or her designee, to sign and submit funds requests and all required reporting forms and documentation as may be required by the State in connection with the grant; and,
4. Authorizing the City Manager to sign all documents related to the execution of grant agreements with subgrantees receiving allocations of funds from the PLHA program.

CITY OF LIVERMORE CALIFORNIA

7

Surface Mining Permit (SMP) 39/40 Project
City Council

Presented by Ashley Vera
March 25, 2024

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1

Project Location

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2

Entitlement/Action Summary

- General Plan Amendment
- Annexation/Prezoning
- Zoning Map Amendment/Planned Development District/Development Code Amendment
- Vesting Tentative Subdivision Map (2)
- Development Agreement (2)
- Site Plan Design Review (1)
- EIR Certification
- LAFCo application submittal

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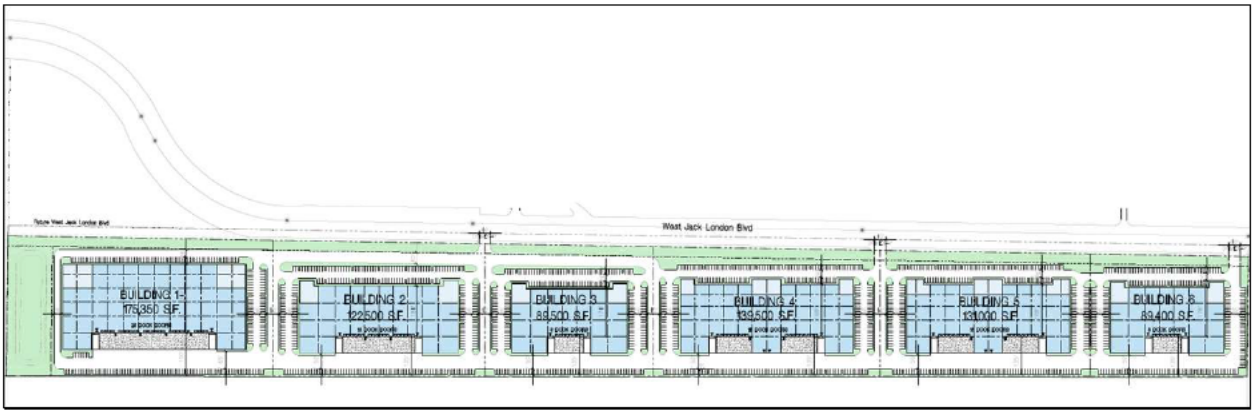
3

SMP 39 Conceptual Site Plan



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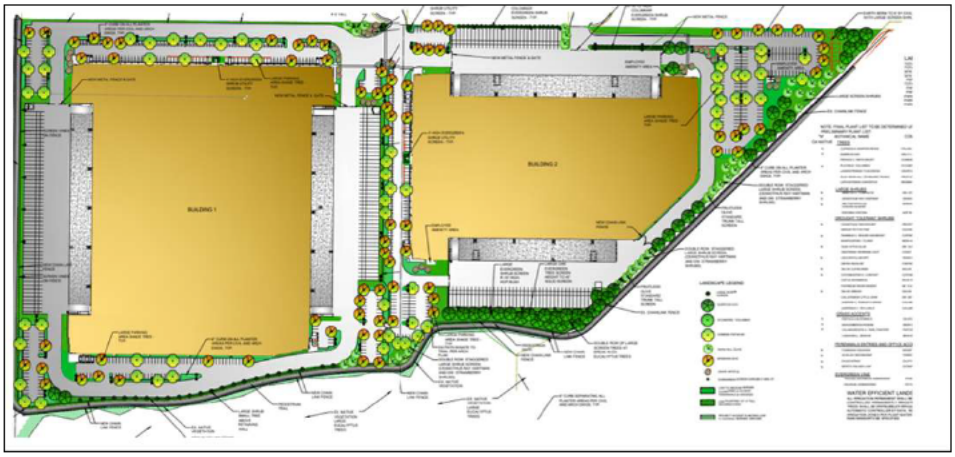
4

SMP 40 Site Plan



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5

SMP 40 Elevations – Western Building

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6

SMP 40 Elevations – Eastern Building

LIVERMORE

7

Planned Development Zoning

Light industrial uses including:

- Research and development facilities
- Professional and administrative offices
- Experimental and testing laboratories
- Manufacturing uses
- Warehouse and distribution – permitted on SMP 40, conditionally permitted on SMP 39 and limited to 20% of buildable area

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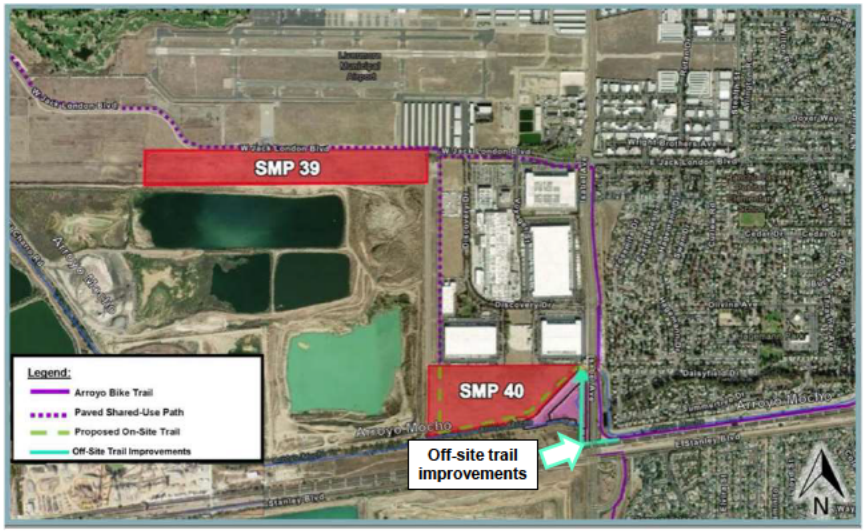
8

Trail Improvements



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9

Development Agreement

- Developer financial contribution toward marketing SMP 39 towards desired uses in PD-I 22-001
- Developer financial contribution and construction of off-site trail improvements
- Forfeiture of mining rights

LIVERMORE

10

EIR Topics Analyzed

- Agricultural Resources
- Air Quality, Greenhouse Gas Emissions, and Energy
- Biological Resources
- Cultural and Tribal Cultural Resources
- Hydrology and Water Quality
- Noise
- Public Services, Utilities, and Service Systems
- Transportation

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11

EIR Impact Summary

Less than Significant with Mitigation:

- Air Quality, Greenhouse Gases and Energy
- Biological Resources
- Cultural and Tribal Cultural Resources
- Hydrology and Water Quality
- Public Services, Utilities and Service Systems
- Noise
- Transportation

Significant and Unavoidable:

- Agricultural Resources

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12

Statement of Overriding Considerations

- Revitalizes underutilized lands appropriate for infill development and which are compatible with surrounding development
- Promotes industrial development consistent with the General Plan
- Provides opportunity for local jobs with competitive salaries
- Creates logical boundaries which align with the City's UGB
- Includes improvements to West Jack London Boulevard and on and off-site trail improvements
- Generates long-term sustainable property and potential sales tax revenue

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13

Previous Public Hearings

Alameda County Airport Land Use Commission
- Project is compatible with the ALUCP

Airport Commission
- Project is compatible with the Livermore APA and the ALUCP
- Condition that avigation easements be required for each of the project properties

Planning Commission
- Recommended approval of the project
- Conditioned recommendation on minor modifications to the design of on-site trail connection, the Transportation Demand Management (TDM) Program reporting requirements, and tree species located near the proposed employee break areas.

City of Pleasanton City Council
- Supports SOI modification on SMP 39

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14

Next Steps

Local Agency Formation Commission (LAFCo):

- State mandated local agency that oversees boundary changes to cities and special districts
- Public Hearing anticipated Spring/Summer 2024

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15

Recommendation

Planning Commission and staff recommend the City Council take the following actions to authorize the future development of light industrial buildings on the SMP 39 and SMP 40 properties:

1. Adopt a resolution certifying the Final Environmental Impact Report for the SMP 39/SMP 40 Project and adopting California Environmental Quality Act Findings, A Statement of Overriding Considerations, and a Mitigation Monitoring and Reporting Program;
2. Adopt a resolution approving General Plan Amendment (GPA) 21-001, Vesting Tentative Parcel Map (SUB) 21-008, Vesting Tentative Tract Map (SUB) 21-009, and Site Plan Design Review (SPDR) 21-008;
3. Introduce an ordinance and waive the first reading pre-zoning the SMP 39 and SMP 40 properties to Planned Development - Industrial (PD-I) 22-001 and the Additional Annexation Only Parcels to Open Space - Floodplain (OS-F) consistent with Planned Development - Industrial (PD-I) 22-001, Zoning Map Amendment (ZMA) 21-002, and Development Code Amendment (DCA) 21-005;
4. Introduce an ordinance and waive the first reading authorizing execution of Pre-Annexation and Development Agreement (DA) 21-001;
5. Introduce an ordinance and waive the first reading authorizing execution of Pre-Annexation and Development Agreement (DA) 23-002; and
6. Adopt a resolution authorizing submittal of an application to LAFCo for a Sphere of Influence and Annexation modification consistent with Annexation and Prezoning (APZ) 21-003.

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CITY COUNCIL PRESENTATION

March 25th, 2024

OMP OAKS BUSINESS PARK

LIVERMORE

1

SITE HISTORY

- SMP-39 AND SMP-40 owned by Pleasanton Gravel Company in excess of 50 years
- Vacant grassland with Surface Mining Permits
- PCG Acquired these properties with the intention of mining these properties
- PGC-OMP Introduction and agreement since 2019
- OMP working on this project with City of Livermore over 3 years

OMP OAKS BUSINESS PARK

LIVERMORE

2

AERIAL OVERVIEW

OMP OAKS BUSINESS PARK

LIVERMORE

3

PROJECT DESCRIPTION- SMP 39

- Six proposed building/ 755,000 SF
- Designed to meet user flexibility- for sale or lease; smaller buildings for local entrepreneurs
- Site planning submittal in 4Q 2024/PC 2Q 2025
- Working with Livermore IEDD on potential users
- Dedicating land and cost of improvements for widening of Jack London Blvd and bike trail

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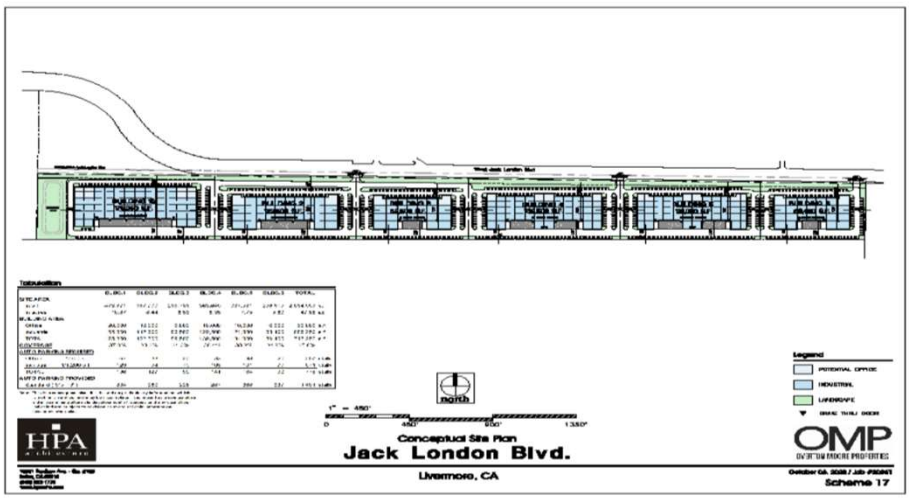
4



OMP OAKS BUSINESS PARK

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5

PROPOSED ELEVATIONS SMP 39

OMP OAKS BUSINESS PARK

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6

PROJECT DESCRIPTION- SMP 40

- Two buildings- 477,000 and 280,000 sf
- Building 1 Pre-leased to Lam Research- Expanding in Livermore
- Building 2 Design: Sensitive to Neighbors to the east
  - North/South loading
  - Screened loading areas
  - 884-1,000' from neighbors to the East
  - Limited night time truck trips

OMP OAKS BUSINESS PARK

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PROJECT DESCRIPTION- SMP 40

- Roofs designed to accommodate PV
- TDM to reduce VMT's
- Abundant EV Charging Stations – 75 at CofO
- Electrical conduit in the Truck Court for future truck use
- NO Natural Gas connections
- Commence grading 7/15/24

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8

SITE PLAN SMP 40
Site Plan
Building 1
±471,489 SF
Leased
Building 2
±288,747 SF
Citywide Multi-Use Trail Connection
ISABEL AVENUE
84
STANLEY BOULEVARD
OMP OAKS BUSINESS PARK
LIVERMORE

9

OMP OAKS BUSINESS PARK
LIVERMORE

10

PROJECT BENEFITS
• Hundreds of new high quality jobs and tens of millions of dollars in annual salaries and wages
• Annex property into the City of Livermore. Long term tax revenue
• Combination of warehouse/Dist. and Advance Mfg. jobs
• Hundreds of new construction jobs- Sheet Metals Workers Local 104, IBEW, Sprinkler Fitters, Ironworkers, UA P&S
OMP OAKS BUSINESS PARK
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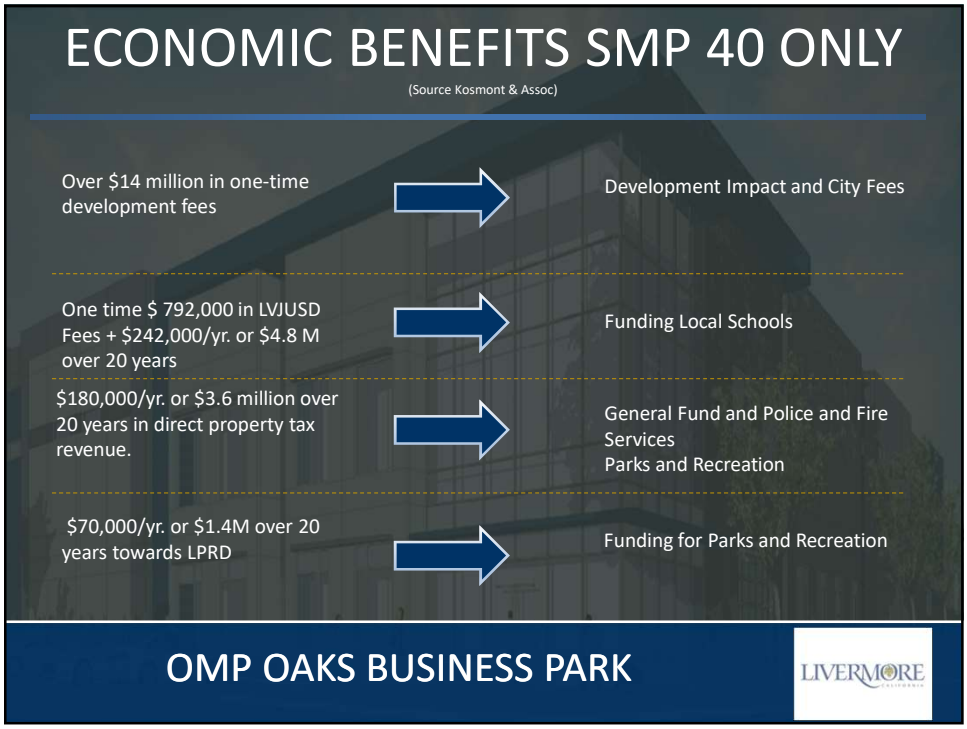
PROJECT BENEFITS
• Additional Revenue for the City of Livermore, MUSD, and other agencies
• Improved Jobs – Housing Balance- reduce commute times
• Expansion Opportunities for a new or existing companies in Livermore- Building 1
• Support for Livermore retail and restaurants
• Arroyo Mucho Trail Connection- get bikes off Isabel/Jack London
OMP OAKS BUSINESS PARK
LIVERMORE

12


ECONOMIC BENEFITS SMP 40 ONLY
(Source Kosmont & Assoc)
Over $14 million in one-time development fees
Development Impact and City Fees
One time $ 792,000 in LVJUSD Fees + $242,000/yr. or $4.8 M over 20 years
Funding Local Schools
$180,000/yr. or $3.6 million over 20 years in direct property tax revenue.
General Fund and Police and Fire Services
Parks and Recreation
$70,000/yr. or $1.4M over 20 years towards LPRD
Funding for Parks and Recreation
OMP OAKS BUSINESS PARK
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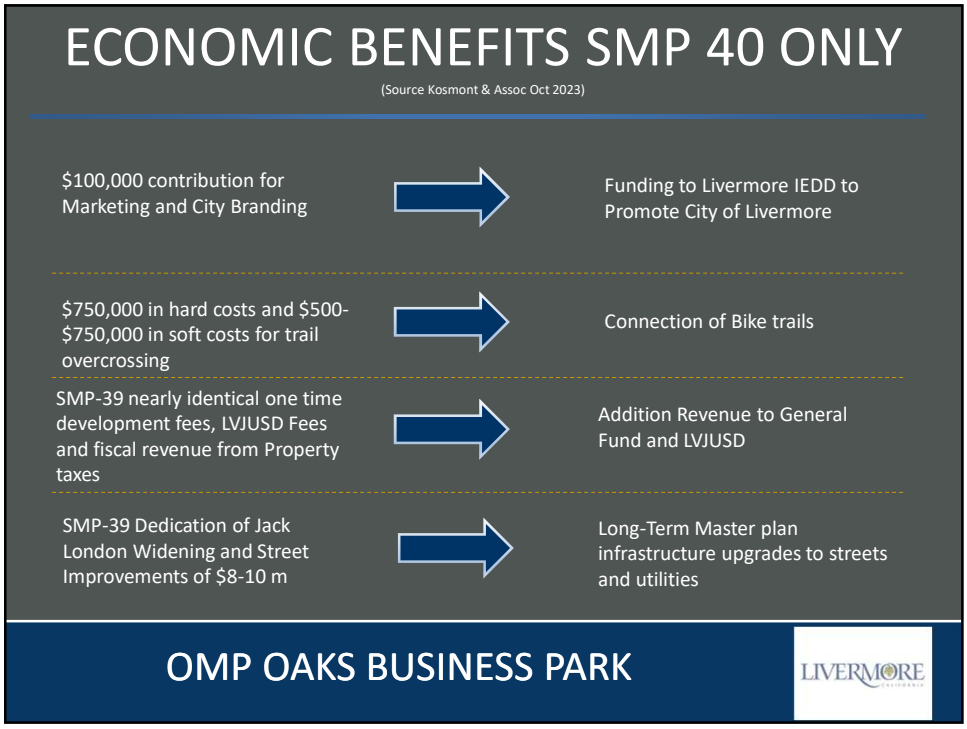
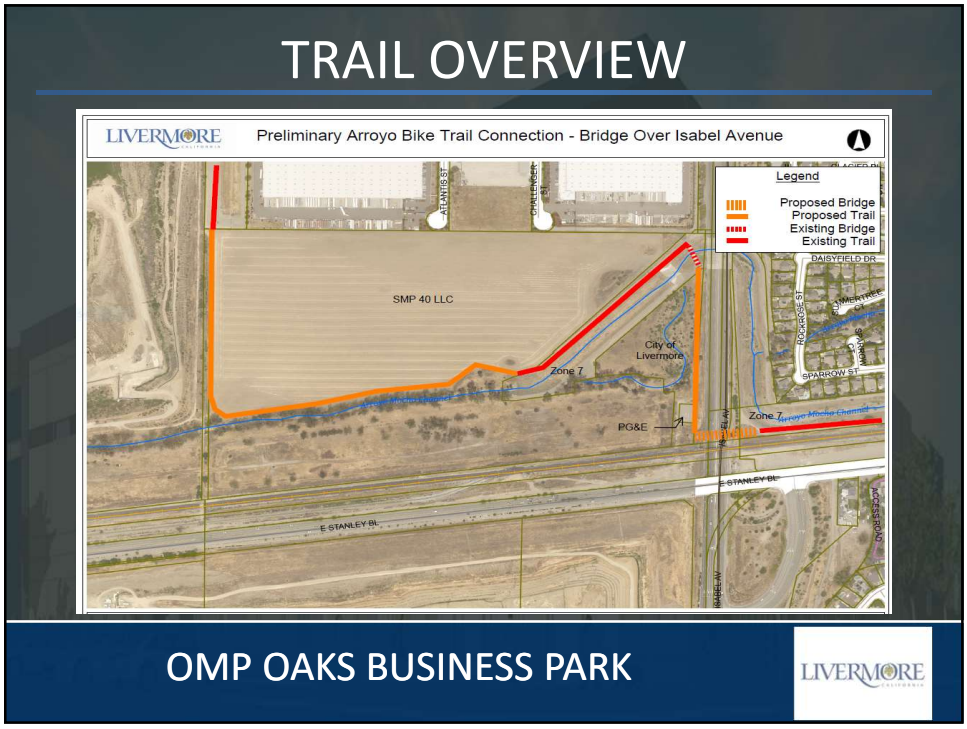

ECONOMIC BENEFITS SMP 40 ONLY
(Source Kosmont & Assoc Oct 2023)
$100,000 contribution for Marketing and City Branding
Funding to Livermore IEDD to Promote City of Livermore
$750,000 in hard costs and $500-$750,000 in soft costs for trail overcrossing
Connection of Bike trails
SMP-39 nearly identical one time development fees, LVJUSD Fees and fiscal revenue from Property taxes
Addition Revenue to General Fund and LVJUSD
SMP-39 Dedication of Jack London Widening and Street Improvements of $8-10 m
Long-Term Master plan infrastructure upgrades to streets and utilities
OMP OAKS BUSINESS PARK
LIVERMORE

14

OMP OAKS BUSINESS PARK
LIVERMORE

15


TRAIL OVERVIEW
LIVERMORE
Preliminary Arroyo Bike Trail Connection - Bridge Over Isabel Avenue
Legend
Proposed Bridge
Proposed Trail
Existing Bridge
Existing Trail
SMP 40 LLC
City of Livermore
Zone 7
PG&E
DAISYFIELD DR
SPARROW ST
E STANLEY BL
OMP OAKS BUSINESS PARK
LIVERMORE

16

BUILDING DISTANCES

OMP OAKS BUSINESS PARK

LIVERMORE CALIFORNIA

17

Helena Graves

From: Pete Sheehan [redacted]
Sent: Friday, March 22, 2024 10:29 AM
To: City Clerk
Cc: Pete Sheehan
Attachments: 2024 GSEJA _ SWAPE Response to Comments City of Livermore - SMP 39, SMP 40.pdf; GSEJA Comment Letter SMP 39:40 EIR .pdf

[redacted] [redacted]

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Subject: GSEJA Public Comment Livermore City Council Meeting 3-25-24 SMP 39/40 Project EIR Public Hearing Item 6.3

To Whom It May Concern,

Attached are public comments on behalf of Golden State Environmental Justice Alliance. These comments are submitted to the City Council to be included in the record for the City Council's consideration regarding GSEJA Public Comment Livermore City Council Meeting 3-25-24 SMP 39/40 Project EIR Public Hearing Item 6.3

For clarification purposes, only the highlighted yellow portion of the body of this email is the public comment to be added into the record along with the two attachments.

Please confirm receipt of this email.

Public Comment
Good evening, my name is Pete Sheehan and I'm with the Golden State Environmental Justice Alliance. We submitted a comment letter to the Draft Environmental Impact Report. Our letter identified several deficiencies with the EIR. In addition to the comment letter and subsequent public comments, we have also submitted a rebuttal letter by SWAPE(Soil Water Air Protection Enterprise). This rebuttal is in regard to the City's response to our original comment letter.

During these turbulent times, we as citizens expect and deserve our local government's elected and appointed officials to protect us from environmental and social injustice, to aid in the preservation and rehabilitation of the environment in which we all share, and to ensure accountability and responsibility regarding the environmental decisions they may make.

We stand by our comment letter and believe the EIR is flawed, and must be redrafted and recirculated for public review. In closing we call on this commission to be a leader on the aforementioned issues and be the first line of defense for our citizenry and environment. Only by working together can we continue to be excellent stewards of our environment, outstanding stewards to our citizens and each other. Thank You.

Please confirm receipt of this email.

Thank You,

Pete Sheehan

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

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

March 20, 2024

Gary Ho
Blum, Collins & Ho LLP
707 Wilshire Blvd, Ste. 4880
Los Angeles, CA 90017

Subject: Comments on the SMP 39/SMP 40 Project (SCH No. 2017091054)

Dear Mr. Ho,

We have reviewed the January 2024 Final Environmental Impact Report ("FEIR") and the August 2023 Draft Environmental Impact Report ("DEIR") for the SMP 39/SMP 40 Project ("Project") located in the City of Livermore ("City"). Upon review, we find that the FEIR is insufficient in addressing our concerns regarding the Project's health risk impacts. As asserted in our October 11th, 2023 comment letter, a revised EIR should be prepared to adequately evaluate the Project's potential impacts on the environment.

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

In our October 11th comment letter, we identified several issues with the DEIR's air model (California Emissions Estimator Model, "CalEEMod")[1] that reduced the Project's construction and operational emissions. After review of the FEIR's response to our comments, we found that the FEIR fails to address all our concerns and maintain that the DEIR's CalEEMod models are flawed and fail to accurately estimate the Project's criteria air pollutant emissions. Specifically, the FEIR fails to adequately address our comments regarding the changes to individual construction phase lengths. Consequently, we find the DEIR and FEIR to be inadequate and maintain that a revised EIR should be prepared to adequately evaluate the Project's local and regional air quality impacts. Until a proper air quality analysis is conducted, the Project should not be approved.

[1] "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/download-model.

Unsubstantiated Changes to Individual Construction Phase Lengths

As stated in our October 11th comment letter, the "SMPs Project (SMP 39)" and "SMPs Project - SMP 40" CalEEMod models include several changes to the default individual construction phase lengths (Appendix C, pp. 1272, 1306, 1335, 1375, 1409, 1438, 1478, 1512, 1541, 1672, 1702, 1727, 1763, 1793, 1818). Review of the FEIR's response to comments demonstrates that while the Project justifies the total construction duration, the FEIR again fails to justify that the *individual* construction phase lengths were provided by the Project applicant.

Regarding our comment on construction phase lengths, the FEIR responds:

> "Because project-specific information was provided by the applicant, the default construction phase lengths were adjusted to match the actual anticipated construction schedule for the project" (p. 2.109).

The FEIR continues, stating:

> "Nevertheless, in response to the comment, page 4.2-42 of the Draft EIR hereby revised as show below to provide greater specificity regarding the overall length of construction that was assumed within the emissions modeling prepared for the proposed project and included as Appendix A t the Draft EIR:
>
> The following inherent design features and project-specific information were included in the modeling conducted for SMP 39:
>
> - Construction would begin in September of 2024;
> - Construction would occur over approximately two years 22 months;
> - 24,000 cubic yards (CY) of soil import would be required; and
> - Tier 3 engines would be used for all off-road heavy-duty equipment over 150
> - horsepower.
>
> Similarly, the following inherent design features and project-specific information were included in the modeling conducted for SMP 40:
>
> - Construction would begin in September of 2023;
> - Construction would occur over approximately two years 15 months;
> - 7,000 CY of soil import would be required; and
> - Tier 3 engines would be used for all off-road heavy-duty equipment over 150
> - horsepower.
>
> The foregoing minor text revisions clarify the inputs used in the emissions modeling and reproduces information that was available in Appendix A of the Draft EIR. The foregoing changes do not affect the conclusions presented within the Draft EIR" (p. 2-109).

As discussed, the FEIR substantiates the overall length of construction of 22 months, among other Project details. However, the FEIR again fails to substantiate the individual construction phase lengths.

Rather, the FEIR states the individual phase lengths were altered to match the proposed total duration provided by the Project applicant. While adjusting the individual phase lengths to match the total duration is common practice, disproportionately adjusting the individual phase lengths without substantial evidence by the Project applicant can potentially demonstrate underestimated emission rates. As stated in our October 11th comment letter, by disproportionately altering and extending some of the individual construction phase lengths without proper justification, the models assume there are a greater number of days to complete the construction activities required by the prolonged phases. As a result, there will be less construction activities required per day and, consequently, less pollutants emitted per day.

As demonstrated in the following section, "SWAPE's Analysis Indicates a Potential Significant Air Quality Impact," we proportionately altered the individual construction phase lengths.[2] We found our new model resulted in emission estimates that exceed thresholds. Until the FEIR properly substantiates the revised construction phase lengths, we cannot verify that the models, and consequent less-than-significant impact conclusion, are accurate. We reiterate our October 11th comment that the Project's CalEEMod models are unsubstantiated, and the DEIR's and FEIR's less-than-significant air quality impact conclusions should not be relied upon.

SWAPE's Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to more accurately estimate the Project's construction-related emissions, we prepared two updated CalEEMod models based on the "SMPs Project (SMP 39)" and "SMPs Project - SMP 40" models and used the Project-specific information provided by the FEIR and associated documents. In our updated models, we proportionately altered the individual construction phase lengths to match the 22-month construction schedule.[3,4] We matched all other input parameters to be consistent with the respective models.

Our updated analysis estimates that the reactive organic gases ("ROG") emissions associated with Project construction for both SMP 39 and SMP 40 exceed the applicable Bay Area Air Quality Management District ("BAAQMD") threshold of 54 pounds per day ("lbs/day"), as referenced by the DEIR (p. 4.2-49, Table 4.2-8) (see table below).[5]

SWAPE Criteria Air Pollutant Emissions		
Model	**SMP 39 Construction ROG** (lbs/day)	**SMP 40 Construction ROG** (lbs/day)
DEIR	29.0	36.8

[2] See Attachment A for updated construction schedules.
[3] See Attachment A for updated construction schedules.
[4] See Attachment B for SWAPE's CalEEMod models.
[5] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en&rev=0d2d971e661d41f28a56953f1776bdde, p. 2-2.

SWAPE	679.7	402.6
% Increase	2,244%	994%
BAAQMD Threshold	**54**	**54**
Exceeds?	***Yes***	***Yes***

As demonstrated above, construction-related ROG emissions for both the SMP 39 and SMP 40 models, as estimated by SWAPE, increase by approximately 2,244% and 994%, respectively, and exceed the applicable BAAQMD significance thresholds. Our updated modeling demonstrates that the Project may result in a potentially significant air quality impact that was not previously identified or addressed by the FEIR or associated documents. As a result, a revised EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the environment.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially a significant air quality impact that should be mitigated further. In an effort to reduce emissions, the Project should consider the implementation of the following mitigation measures found in the California Department of Justice Warehouse Project Best Practices document.[6]

- Prohibiting off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day.
- Designating an area in the construction site where electric-powered construction vehicles and equipment can charge.
- Limiting the amount of daily grading disturbance area.
- Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area.
- Forbidding idling of heavy equipment for more than three minutes.
- Keeping onsite and furnishing to the lead agency or other regulators upon request, all equipment maintenance records and data sheets, including design specifications and emission control tier classifications.
- Conducting an on-site inspection to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts.
- Requiring all heavy-duty vehicles engaged in drayage to or from the project site to be zero-emission beginning in 2030.
- Requiring tenants to use zero-emission light- and medium-duty vehicles as part of business operations.
- Forbidding trucks from idling for more than three minutes and requiring operators to turn off engines when not in use.

[6] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." State of California Department of Justice, September 2022, *available at*: https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf, p. 8 – 10.

- Installing solar photovoltaic systems on the project site of a specified electrical generation capacity that is equal to or greater than the building's projected energy needs, including all electrical chargers.
- Designing all project building roofs to accommodate the maximum future coverage of solar panels and installing the maximum solar power generation capacity feasible.
- Constructing zero-emission truck charging/fueling stations proportional to the number of dock doors at the project.
- Running conduit to designated locations for future electric truck charging stations.
- Unless the owner of the facility records a covenant on the title of the underlying property ensuring that the property cannot be used to provide refrigerated warehouse space, constructing electric plugs for electric transport refrigeration units at every dock door and requiring truck operators with transport refrigeration units to use the electric plugs when at loading docks.
- Oversizing electrical rooms by 25 percent or providing a secondary electrical room to accommodate future expansion of electric vehicle charging capability.
- Constructing and maintaining electric light-duty vehicle charging stations proportional to the number of employee parking spaces (for example, requiring at least 10% of all employee parking spaces to be equipped with electric vehicle charging stations of at least Level 2 charging performance)
- Running conduit to an additional proportion of employee parking spaces for a future increase in the number of electric light-duty charging stations.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, air filtration systems at sensitive receptors within a certain radius of facility for the life of the project.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the project, and making the resulting data publicly available in real time. While air monitoring does not mitigate the air quality or greenhouse gas impacts of a facility, it nonetheless benefits the affected community by providing information that can be used to improve air quality or avoid exposure to unhealthy air.
- Requiring all stand-by emergency generators to be powered by a non-diesel fuel.
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks.
- Requiring operators to establish and promote a rideshare program that discourages single-occupancy vehicle trips and provides financial incentives for alternate modes of transportation, including carpooling, public transit, and biking.
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking.
- Designing to LEED green building certification standards.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations.
- Posting signs at every truck exit driveway providing directional information to the truck route.

- Improving and maintaining vegetation and tree canopy for residents in and around the project area.
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses. Also require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring tenants to enroll in the United States Environmental Protection Agency's SmartWay program, and requiring tenants who own, operate, or hire trucking carriers with more than 100 trucks to use carriers that are SmartWay carriers.

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation. A revised EIR should be prepared to include all feasible mitigation measures, as well as include an updated air quality analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The revised EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Attachment A: Updated Construction Calculations
Attachment B: SWAPE's Updated CalEEMod Output Files
Attachment C: Matt Hagemann CV
Attachment D: Paul Rosenfeld CV

Construction Schedule Calculations					
Phase	Default Phase Length	Construction Duration	%	Construction Duration	Revised Phase Length
Grading	110	1915	0.0574	304	17
Construction	1110	1915	0.5796	304	176
Paving	75	1915	0.0392	304	12
Architectural Coating	75	1915	0.0392	304	12

	Total Default Construction Duration	Revised Construction Duration
Start Date	9/2/2024	9/2/2024
End Date	11/30/2029	7/3/2025
Total Days	1915	304

Construction Schedule Calculations					
Phase	Default Phase Length	Construction Duration	%	Construction Duration	Revised Phase Length
Grading	75	1294	0.0580	475	28
Construction	740	1294	0.5719	475	272
Paving	55	1294	0.0425	475	20
Architectural Coating	55	1294	0.0425	475	20

	Total Default Construction Duration		Revised Construction Duration
Start Date	9/1/2023		9/1/2023
End Date	3/18/2027		12/19/2024
Total Days	1294		475

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

SMPs Project (SMP 39)

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	755.50	1000sqft	44.28	755,500.00	0
Parking Lot	1,647.00	Space	14.82	658,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - Consistent with the DEIR's model.

Construction Phase - See SWAPE's comment on "Unsubstantiated Changes to Individual Construction Phase Lengths."

Grading - Consistent with the DEIR's model.

Vehicle Trips - Consistent with the DEIR's model.

Construction Off-road Equipment Mitigation - Consistent with the DEIR's model.

Operational Off-Road Equipment - Consistent with the DEIR's model.

Stationary Sources - Emergency Generators and Fire Pumps - Consistent with the DEIR's model.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	75.00	12.00
tblConstructionPhase	NumDays	1,110.00	176.00
tblConstructionPhase	NumDays	110.00	17.00
tblConstructionPhase	NumDays	75.00	12.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblGrading	AcresOfGrading	51.00	270.00
tblGrading	MaterialImported	0.00	24,000.00
tblLandUse	LotAcreage	17.34	44.28
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	8.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	22.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.01
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	3.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TL	7.30	3.11
tblVehicleTrips	CC_TL	7.30	3.11
tblVehicleTrips	CW_TL	9.50	4.05
tblVehicleTrips	ST_TR	1.74	4.75
tblVehicleTrips	SU_TR	1.74	4.75
tblVehicleTrips	WD_TR	1.74	4.75

2.0 Emissions Summary

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SMPs Project (SMP 39) - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0309	0.4790	0.2873	1.4300e-003	0.2224	0.0130	0.2354	0.0511	0.0120	0.0632	0.0000	135.4946	135.4946	0.0180	0.0140	140.1138
2025	0.2587	2.0757	2.7055	9.6300e-003	0.5470	0.0537	0.6007	0.1486	0.0506	0.1992	0.0000	901.9481	901.9481	0.0638	0.0654	923.0218
2029	4.1043	0.0592	0.1113	2.0000e-004	6.3500e-003	2.8400e-003	9.2000e-003	1.6900e-003	2.6400e-003	4.3300e-003	0.0000	17.9142	17.9142	4.0500e-003	1.0000e-004	18.0450
Maximum	**4.1043**	**2.0757**	**2.7055**	**9.6300e-003**	**0.5470**	**0.0537**	**0.6007**	**0.1486**	**0.0506**	**0.1992**	**0.0000**	**901.9481**	**901.9481**	**0.0638**	**0.0654**	**923.0218**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0100	0.2319	0.3321	1.4300e-003	0.2224	2.5300e-003	0.2250	0.0511	2.4600e-003	0.0536	0.0000	135.4945	135.4945	0.0180	0.0140	140.1138
2025	0.1672	1.1750	2.8265	9.6300e-003	0.5470	0.0109	0.5579	0.1486	0.0105	0.1591	0.0000	901.9479	901.9479	0.0638	0.0654	923.0216
2029	4.0996	8.8800e-003	0.1277	2.0000e-004	6.3500e-003	2.7000e-004	6.6200e-003	1.6900e-003	2.7000e-004	1.9600e-003	0.0000	17.9142	17.9142	4.0500e-003	1.0000e-004	18.0450
Maximum	**4.0996**	**1.1750**	**2.8265**	**9.6300e-003**	**0.5470**	**0.0109**	**0.5579**	**0.1486**	**0.0105**	**0.1591**	**0.0000**	**901.9479**	**901.9479**	**0.0638**	**0.0654**	**923.0216**

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SMPs Project (SMP 39) - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	2.66	45.84	-5.87	0.00	0.00	80.34	6.61	0.00	79.73	19.51	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-2-2024	12-1-2024	0.4857	0.2266
2	12-2-2024	3-1-2025	0.2790	0.1622
3	3-2-2025	6-1-2025	0.8675	0.4971
4	6-2-2025	9-1-2025	0.8591	0.4887
5	9-2-2025	12-1-2025	0.3285	0.1876
19	3-2-2029	6-1-2029	0.0821	0.0307
20	6-2-2029	9-1-2029	3.6489	3.6427
21	9-2-2029	9-30-2029	0.7298	0.7285
		Highest	3.6489	3.6427

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.4029	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0429	0.0429	1.1000e-004	0.0000	0.0457
Energy	0.0140	0.1274	0.1070	7.6000e-004		9.6800e-003	9.6800e-003		9.6800e-003	9.6800e-003	0.0000	404.6784	404.6784	0.0457	7.7600e-003	408.1327
Mobile	1.2442	1.2777	10.8714	0.0214	2.4182	0.0161	2.4342	0.6461	0.0150	0.6610	0.0000	2,036.7420	2,036.7420	0.1424	0.1022	2,070.7423
Offroad	0.0573	2.7389	27.3397	4.3700e-003		0.0532	0.0532		0.0532	0.0532	0.0000	501.5298	501.5298	0.1622	0.0000	505.5849
Stationary	1.4800e-003	4.1500e-003	3.7800e-003	1.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.6889	0.6889	1.0000e-004	0.0000	0.6913
Waste						0.0000	0.0000		0.0000	0.0000	144.1581	0.0000	144.1581	8.5195	0.0000	357.1456
Water						0.0000	0.0000		0.0000	0.0000	55.4272	87.4676	142.8948	5.7071	0.1361	326.1401
Total	**4.7200**	**4.1484**	**38.3439**	**0.0265**	**2.4182**	**0.0792**	**2.4974**	**0.6461**	**0.0781**	**0.7242**	**199.5853**	**3,031.1496**	**3,230.7349**	**14.5771**	**0.2461**	**3,668.4826**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.4029	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0429	0.0429	1.1000e-004	0.0000	0.0457
Energy	0.0140	0.1274	0.1070	7.6000e-004		9.6800e-003	9.6800e-003		9.6800e-003	9.6800e-003	0.0000	404.6784	404.6784	0.0457	7.7600e-003	408.1327
Mobile	1.2442	1.2777	10.8714	0.0214	2.4182	0.0161	2.4342	0.6461	0.0150	0.6610	0.0000	2,036.7420	2,036.7420	0.1424	0.1022	2,070.7423
Offroad	0.0573	2.7389	27.3397	4.3700e-003		0.0532	0.0532		0.0532	0.0532	0.0000	501.5298	501.5298	0.1622	0.0000	505.5849
Stationary	1.4800e-003	4.1500e-003	3.7800e-003	1.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.6889	0.6889	1.0000e-004	0.0000	0.6913
Waste						0.0000	0.0000		0.0000	0.0000	144.1581	0.0000	144.1581	8.5195	0.0000	357.1456
Water						0.0000	0.0000		0.0000	0.0000	55.4272	87.4676	142.8948	5.7071	0.1361	326.1401
Total	**4.7200**	**4.1484**	**38.3439**	**0.0265**	**2.4182**	**0.0792**	**2.4974**	**0.6461**	**0.0781**	**0.7242**	**199.5853**	**3,031.1496**	**3,230.7349**	**14.5771**	**0.2461**	**3,668.4826**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	9/2/2024	9/24/2024	5	17	
2	Building Construction	Building Construction	2/1/2025	10/6/2025	5	176	
3	Paving	Paving	5/5/2029	5/22/2029	5	12	
4	Architectural Coating	Architectural Coating	8/18/2029	9/4/2029	5	12	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 270

Acres of Paving: 14.82

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,133,250; Non-Residential Outdoor: 377,750; Striped Parking Area: 39,528 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Ar ctural Coating	Air Compressors	1	6.00	78	0.48

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	3,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	594.00	232.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	119.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1957	0.0000	0.1957	0.0438	0.0000	0.0438	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0274	0.2752	0.2356	5.3000e-004		0.0114	0.0114		0.0104	0.0104	0.0000	46.3416	46.3416	0.0150	0.0000	46.7163
Total	**0.0274**	**0.2752**	**0.2356**	**5.3000e-004**	**0.1957**	**0.0114**	**0.2071**	**0.0438**	**0.0104**	**0.0542**	**0.0000**	**46.3416**	**46.3416**	**0.0150**	**0.0000**	**46.7163**

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3.2 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1200e-003	0.2035	0.0481	8.9000e-004	0.0254	1.6600e-003	0.0270	6.9800e-003	1.5900e-003	8.5700e-003	0.0000	88.1261	88.1261	2.9500e-003	0.0140	92.3620
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	2.7000e-004	3.5200e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.6000e-004	0.0000	1.0268	1.0268	3.0000e-005	3.0000e-005	1.0356
Total	**3.5300e-003**	**0.2038**	**0.0516**	**9.0000e-004**	**0.0267**	**1.6700e-003**	**0.0284**	**7.3400e-003**	**1.6000e-003**	**8.9300e-003**	**0.0000**	**89.1530**	**89.1530**	**2.9800e-003**	**0.0140**	**93.3975**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1957	0.0000	0.1957	0.0438	0.0000	0.0438	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4700e-003	0.0281	0.2805	5.3000e-004		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	46.3415	46.3415	0.0150	0.0000	46.7162
Total	**6.4700e-003**	**0.0281**	**0.2805**	**5.3000e-004**	**0.1957**	**8.6000e-004**	**0.1966**	**0.0438**	**8.6000e-004**	**0.0447**	**0.0000**	**46.3415**	**46.3415**	**0.0150**	**0.0000**	**46.7162**

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3.2 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1200e-003	0.2035	0.0481	8.9000e-004	0.0254	1.6600e-003	0.0270	6.9800e-003	1.5900e-003	8.5700e-003	0.0000	88.1261	88.1261	2.9500e-003	0.0140	92.3620
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	2.7000e-004	3.5200e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.6000e-004	0.0000	1.0268	1.0268	3.0000e-005	3.0000e-005	1.0356
Total	**3.5300e-003**	**0.2038**	**0.0516**	**9.0000e-004**	**0.0267**	**1.6700e-003**	**0.0284**	**7.3400e-003**	**1.6000e-003**	**8.9300e-003**	**0.0000**	**89.1530**	**89.1530**	**2.9800e-003**	**0.0140**	**93.3975**

3.3 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1203	1.0973	1.4155	2.3700e-003		0.0464	0.0464		0.0437	0.0437	0.0000	204.0891	204.0891	0.0480	0.0000	205.2885
Total	**0.1203**	**1.0973**	**1.4155**	**2.3700e-003**		**0.0464**	**0.0464**		**0.0437**	**0.0437**	**0.0000**	**204.0891**	**204.0891**	**0.0480**	**0.0000**	**205.2885**

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3.3 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0206	0.9047	0.2731	4.0000e-003	0.1340	5.3500e-003	0.1393	0.0388	5.1200e-003	0.0439	0.0000	389.6672	389.6672	8.1300e-003	0.0576	407.0376
Worker	0.1178	0.0737	1.0169	3.2600e-003	0.4130	1.9400e-003	0.4150	0.1099	1.7900e-003	0.1117	0.0000	308.1919	308.1919	7.6700e-003	7.7600e-003	310.6957
Total	**0.1384**	**0.9784**	**1.2900**	**7.2600e-003**	**0.5470**	**7.2900e-003**	**0.5543**	**0.1486**	**6.9100e-003**	**0.1555**	**0.0000**	**697.8590**	**697.8590**	**0.0158**	**0.0654**	**717.7333**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0289	0.1967	1.5365	2.3700e-003		3.5900e-003	3.5900e-003		3.5900e-003	3.5900e-003	0.0000	204.0889	204.0889	0.0480	0.0000	205.2883
Total	**0.0289**	**0.1967**	**1.5365**	**2.3700e-003**		**3.5900e-003**	**3.5900e-003**		**3.5900e-003**	**3.5900e-003**	**0.0000**	**204.0889**	**204.0889**	**0.0480**	**0.0000**	**205.2883**

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3.3 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0206	0.9047	0.2731	4.0000e-003	0.1340	5.3500e-003	0.1393	0.0388	5.1200e-003	0.0439	0.0000	389.6672	389.6672	8.1300e-003	0.0576	407.0376
Worker	0.1178	0.0737	1.0169	3.2600e-003	0.4130	1.9400e-003	0.4150	0.1099	1.7900e-003	0.1117	0.0000	308.1919	308.1919	7.6700e-003	7.7600e-003	310.6957
Total	**0.1384**	**0.9784**	**1.2900**	**7.2600e-003**	**0.5470**	**7.2900e-003**	**0.5543**	**0.1486**	**6.9100e-003**	**0.1555**	**0.0000**	**697.8590**	**697.8590**	**0.0158**	**0.0654**	**717.7333**

3.4 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.4900e-003	0.0515	0.0875	1.4000e-004		2.5100e-003	2.5100e-003		2.3100e-003	2.3100e-003	0.0000	12.0116	12.0116	3.8800e-003	0.0000	12.1087
Paving	0.0194					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0249**	**0.0515**	**0.0875**	**1.4000e-004**		**2.5100e-003**	**2.5100e-003**		**2.3100e-003**	**2.3100e-003**	**0.0000**	**12.0116**	**12.0116**	**3.8800e-003**	**0.0000**	**12.1087**

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3.4 Paving - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	9.0000e-005	1.4500e-003	1.0000e-005	7.1000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.4893	0.4893	1.0000e-005	1.0000e-005	0.4928
Total	**1.6000e-004**	**9.0000e-005**	**1.4500e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.1000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.4893**	**0.4893**	**1.0000e-005**	**1.0000e-005**	**0.4928**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6800e-003	7.2900e-003	0.1038	1.4000e-004		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	12.0115	12.0115	3.8800e-003	0.0000	12.1087
Paving	0.0194					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0211**	**7.2900e-003**	**0.1038**	**1.4000e-004**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**12.0115**	**12.0115**	**3.8800e-003**	**0.0000**	**12.1087**

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3.4 Paving - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	9.0000e-005	1.4500e-003	1.0000e-005	7.1000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.4893	0.4893	1.0000e-005	1.0000e-005	0.4928
Total	**1.6000e-004**	**9.0000e-005**	**1.4500e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.1000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.4893**	**0.4893**	**1.0000e-005**	**1.0000e-005**	**0.4928**

3.5 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.0769					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0300e-003	6.8700e-003	0.0109	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	1.5320	1.5320	8.0000e-005	0.0000	1.5340
Total	**4.0779**	**6.8700e-003**	**0.0109**	**2.0000e-005**		**3.1000e-004**	**3.1000e-004**		**3.1000e-004**	**3.1000e-004**	**0.0000**	**1.5320**	**1.5320**	**8.0000e-005**	**0.0000**	**1.5340**

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3.5 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-003	7.2000e-004	0.0115	4.0000e-005	5.6400e-003	2.0000e-005	5.6600e-003	1.5000e-003	2.0000e-005	1.5200e-003	0.0000	3.8815	3.8815	8.0000e-005	9.0000e-005	3.9095
Total	**1.3000e-003**	**7.2000e-004**	**0.0115**	**4.0000e-005**	**5.6400e-003**	**2.0000e-005**	**5.6600e-003**	**1.5000e-003**	**2.0000e-005**	**1.5200e-003**	**0.0000**	**3.8815**	**3.8815**	**8.0000e-005**	**9.0000e-005**	**3.9095**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.0769					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8000e-004	7.7000e-004	0.0110	2.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.5320	1.5320	8.0000e-005	0.0000	1.5340
Total	**4.0771**	**7.7000e-004**	**0.0110**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.5320**	**1.5320**	**8.0000e-005**	**0.0000**	**1.5340**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-003	7.2000e-004	0.0115	4.0000e-005	5.6400e-003	2.0000e-005	5.6600e-003	1.5000e-003	2.0000e-005	1.5200e-003	0.0000	3.8815	3.8815	8.0000e-005	9.0000e-005	3.9095
Total	**1.3000e-003**	**7.2000e-004**	**0.0115**	**4.0000e-005**	**5.6400e-003**	**2.0000e-005**	**5.6600e-003**	**1.5000e-003**	**2.0000e-005**	**1.5200e-003**	**0.0000**	**3.8815**	**3.8815**	**8.0000e-005**	**9.0000e-005**	**3.9095**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2442	1.2777	10.8714	0.0214	2.4182	0.0161	2.4342	0.6461	0.0150	0.6610	0.0000	2,036.7420	2,036.7420	0.1424	0.1022	2,070.7423
Unmitigated	1.2442	1.2777	10.8714	0.0214	2.4182	0.0161	2.4342	0.6461	0.0150	0.6610	0.0000	2,036.7420	2,036.7420	0.1424	0.1022	2,070.7423

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	3,588.63	3,588.63	3588.63	6,560,272	6,560,272
Total	3,588.63	3,588.63	3,588.63	6,560,272	6,560,272

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	3.11	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	4.05	3.11	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.554285	0.058871	0.188253	0.120585	0.022598	0.005697	0.010798	0.007525	0.000977	0.000545	0.026246	0.000848	0.002771
Unrefrigerated Warehouse-No Rail	0.554285	0.058871	0.188253	0.120585	0.022598	0.005697	0.010798	0.007525	0.000977	0.000545	0.026246	0.000848	0.002771

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	265.9901	265.9901	0.0430	5.2200e-003	268.6203
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	265.9901	265.9901	0.0430	5.2200e-003	268.6203
NaturalGas Mitigated	0.0140	0.1274	0.1070	7.6000e-004		9.6800e-003	9.6800e-003		9.6800e-003	9.6800e-003	0.0000	138.6883	138.6883	2.6600e-003	2.5400e-003	139.5124
NaturalGas Unmitigated	0.0140	0.1274	0.1070	7.6000e-004		9.6800e-003	9.6800e-003		9.6800e-003	9.6800e-003	0.0000	138.6883	138.6883	2.6600e-003	2.5400e-003	139.5124

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	2.59892e+006	0.0140	0.1274	0.1070	7.6000e-004		9.6800e-003	9.6800e-003		9.6800e-003	9.6800e-003	0.0000	138.6883	138.6883	2.6600e-003	2.5400e-003	139.5124
Total		**0.0140**	**0.1274**	**0.1070**	**7.6000e-004**		**9.6800e-003**	**9.6800e-003**		**9.6800e-003**	**9.6800e-003**	**0.0000**	**138.6883**	**138.6883**	**2.6600e-003**	**2.5400e-003**	**139.5124**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	2.59892e+006	0.0140	0.1274	0.1070	7.6000e-004		9.6800e-003	9.6800e-003		9.6800e-003	9.6800e-003	0.0000	138.6883	138.6883	2.6600e-003	2.5400e-003	139.5124
Total		**0.0140**	**0.1274**	**0.1070**	**7.6000e-004**		**9.6800e-003**	**9.6800e-003**		**9.6800e-003**	**9.6800e-003**	**0.0000**	**138.6883**	**138.6883**	**2.6600e-003**	**2.5400e-003**	**139.5124**

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	230580	21.3341	3.4500e-003	4.2000e-004	21.5451
Unrefrigerated Warehouse-No Rail	2.64425e+006	244.6560	0.0396	4.8000e-003	247.0752
Total		**265.9901**	**0.0430**	**5.2200e-003**	**268.6203**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	230580	21.3341	3.4500e-003	4.2000e-004	21.5451
Unrefrigerated Warehouse-No Rail	2.64425e+006	244.6560	0.0396	4.8000e-003	247.0752
Total		**265.9901**	**0.0430**	**5.2200e-003**	**268.6203**

6. Area Detail

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.4029	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0429	0.0429	1.1000e-004	0.0000	0.0457
Unmitigated	3.4029	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0429	0.0429	1.1000e-004	0.0000	0.0457

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4077					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9932					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0300e-003	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0429	0.0429	1.1000e-004	0.0000	0.0457
Total	**3.4029**	**2.0000e-004**	**0.0220**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0429**	**0.0429**	**1.1000e-004**	**0.0000**	**0.0457**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4077					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9932					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0300e-003	2.0000e-004	0.0220	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0429	0.0429	1.1000e-004	0.0000	0.0457
Total	**3.4029**	**2.0000e-004**	**0.0220**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0429**	**0.0429**	**1.1000e-004**	**0.0000**	**0.0457**

7.0 Water Detail

7.1 Mitigation Measures Water

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	142.8948	5.7071	0.1361	326.1401
Unmitigated	142.8948	5.7071	0.1361	326.1401

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	174.709 / 0	142.8948	5.7071	0.1361	326.1401
Total		**142.8948**	**5.7071**	**0.1361**	**326.1401**

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	174.709 / 0	142.8948	5.7071	0.1361	326.1401
Total		**142.8948**	**5.7071**	**0.1361**	**326.1401**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	144.1581	8.5195	0.0000	357.1456
Unmitigated	144.1581	8.5195	0.0000	357.1456

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	710.17	144.1581	8.5195	0.0000	357.1456
Total		**144.1581**	**8.5195**	**0.0000**	**357.1456**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	710.17	144.1581	8.5195	0.0000	357.1456
Total		**144.1581**	**8.5195**	**0.0000**	**357.1456**

9.0 Operational Offroad

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	8	8.00	260	89	0.20	Electrical
Forklifts	22	8.00	260	89	0.20	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.0573	2.7389	27.3397	4.3700e-003		0.0532	0.0532		0.0532	0.0532	0.0000	501.5298	501.5298	0.1622	0.0000	505.5849
Total	**0.0573**	**2.7389**	**27.3397**	**4.3700e-003**		**0.0532**	**0.0532**		**0.0532**	**0.0532**	**0.0000**	**501.5298**	**501.5298**	**0.1622**	**0.0000**	**505.5849**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0.01	3	201	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	1.4800e-003	4.1500e-003	3.7800e-003	1.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.6889	0.6889	1.0000e-004	0.0000	0.6913
Total	**1.4800e-003**	**4.1500e-003**	**3.7800e-003**	**1.0000e-005**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.6889**	**0.6889**	**1.0000e-004**	**0.0000**	**0.6913**

11.0 Vegetation

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SMPs Project (SMP 39)

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	755.50	1000sqft	44.28	755,500.00	0
Parking Lot	1,647.00	Space	14.82	658,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - Consistent with the DEIR's model.

Construction Phase - See SWAPE's comment on "Unsubstantiated Changes to Individual Construction Phase Lengths."

Grading - Consistent with the DEIR's model.

Vehicle Trips - Consistent with the DEIR's model.

Construction Off-road Equipment Mitigation - Consistent with the DEIR's model.

Operational Off-Road Equipment - Consistent with the DEIR's model.

Stationary Sources - Emergency Generators and Fire Pumps - Consistent with the DEIR's model.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	75.00	12.00
tblConstructionPhase	NumDays	1,110.00	176.00
tblConstructionPhase	NumDays	110.00	17.00
tblConstructionPhase	NumDays	75.00	12.00

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tblGrading	AcresOfGrading	51.00	270.00
tblGrading	MaterialImported	0.00	24,000.00
tblLandUse	LotAcreage	17.34	44.28
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	8.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	22.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.01
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	3.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TL	7.30	3.11
tblVehicleTrips	CC_TL	7.30	3.11
tblVehicleTrips	CW_TL	9.50	4.05
tblVehicleTrips	ST_TR	1.74	4.75
tblVehicleTrips	SU_TR	1.74	4.75
tblVehicleTrips	WD_TR	1.74	4.75

2.0 Emissions Summary

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SMPs Project (SMP 39) - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	3.6450	55.4793	33.8005	0.1682	26.2760	1.5313	27.8073	6.0428	1.4160	7.4587	0.0000	17,575.8435	17,575.8435	2.3295	1.8137	18,174.5772
2025	3.0165	23.1303	31.5428	0.1120	6.4509	0.6103	7.0613	1.7467	0.5747	2.3213	0.0000	11,555.0077	11,555.0077	0.7926	0.8105	11,816.3533
2029	679.8753	8.5951	14.8360	0.0237	0.9776	0.4190	1.0326	0.2593	0.3854	0.4181	0.0000	2,302.6658	2,302.6658	0.7153	0.0149	2,321.1091
Maximum	**679.8753**	**55.4793**	**33.8005**	**0.1682**	**26.2760**	**1.5313**	**27.8073**	**6.0428**	**1.4160**	**7.4587**	**0.0000**	**17,575.8435**	**17,575.8435**	**2.3295**	**1.8137**	**18,174.5772**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.1884	26.4024	39.0768	0.1682	26.2760	0.2974	26.5735	6.0428	0.2889	6.3317	0.0000	17,575.8435	17,575.8435	2.3295	1.8137	18,174.5772
2025	1.9769	12.8953	32.9184	0.1120	6.4509	0.1236	6.5745	1.7467	0.1192	1.8659	0.0000	11,555.0077	11,555.0077	0.7926	0.8105	11,816.3533
2029	679.7342	1.2289	17.5537	0.0237	0.9776	0.0378	0.9850	0.2593	0.0378	0.2665	0.0000	2,302.6658	2,302.6658	0.7153	0.0149	2,321.1091
Maximum	**679.7342**	**26.4024**	**39.0768**	**0.1682**	**26.2760**	**0.2974**	**26.5735**	**6.0428**	**0.2889**	**6.3317**	**0.0000**	**17,575.8435**	**17,575.8435**	**2.3295**	**1.8137**	**18,174.5772**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.53**	**53.53**	**-11.69**	**0.00**	**0.00**	**82.08**	**4.93**	**0.00**	**81.23**	**17.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.6575	2.2200e-003	0.2447	2.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004		0.5258	0.5258	1.3700e-003		0.5600
Energy	0.0768	0.6981	0.5864	4.1900e-003		0.0531	0.0531		0.0531	0.0531		837.6857	837.6857	0.0161	0.0154	842.6637
Mobile	7.7349	6.4624	58.5067	0.1238	13.8089	0.0884	13.8973	3.6780	0.0823	3.7603		12,990.9549	12,990.9549	0.7998	0.5866	13,185.7585
Offroad	0.4409	21.0684	210.3056	0.0336		0.4089	0.4089		0.4089	0.4089	0.0000	4,252.6357	4,252.6357	1.3754		4,287.0204
Stationary	9.9000e-003	0.0277	0.0252	5.0000e-005		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		5.0623	5.0623	7.1000e-004		5.0800
Total	**26.9200**	**28.2587**	**269.6685**	**0.1616**	**13.8089**	**0.5526**	**14.3615**	**3.6780**	**0.5465**	**4.2245**	**0.0000**	**18,086.8643**	**18,086.8643**	**2.1933**	**0.6020**	**18,321.0826**

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.6575	2.2200e-003	0.2447	2.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004		0.5258	0.5258	1.3700e-003		0.5600
Energy	0.0768	0.6981	0.5864	4.1900e-003		0.0531	0.0531		0.0531	0.0531		837.6857	837.6857	0.0161	0.0154	842.6637
Mobile	7.7349	6.4624	58.5067	0.1238	13.8089	0.0884	13.8973	3.6780	0.0823	3.7603		12,990.9549	12,990.9549	0.7998	0.5866	13,185.7585
Offroad	0.4409	21.0684	210.3056	0.0336		0.4089	0.4089		0.4089	0.4089	0.0000	4,252.6357	4,252.6357	1.3754		4,287.0204
Stationary	9.9000e-003	0.0277	0.0252	5.0000e-005		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		5.0623	5.0623	7.1000e-004		5.0800
Total	**26.9200**	**28.2587**	**269.6685**	**0.1616**	**13.8089**	**0.5526**	**14.3615**	**3.6780**	**0.5465**	**4.2245**	**0.0000**	**18,086.8643**	**18,086.8643**	**2.1933**	**0.6020**	**18,321.0826**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	9/2/2024	9/24/2024	5	17	
2	Building Construction	Building Construction	2/1/2025	10/6/2025	5	176	
3	Paving	Paving	5/5/2029	5/22/2029	5	12	

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4	Architectural Coating	Architectural Coating	8/18/2029	9/4/2029	5	12

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 270

Acres of Paving: 14.82

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,133,250; Non-Residential Outdoor: 377,750; Striped Parking Area: 39,528 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
G g	8	20.00	0.00	3,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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Building Construction	9	594.00	232.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	119.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					23.0250	0.0000	23.0250	5.1531	0.0000	5.1531			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**23.0250**	**1.3354**	**24.3604**	**5.1531**	**1.2286**	**6.3817**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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3.2 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3763	23.0746	5.6320	0.1047	3.0868	0.1951	3.2819	0.8461	0.1867	1.0328		11,423.9426	11,423.9426	0.3825	1.8105	11,973.0407
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0505	0.0278	0.4456	1.3800e-003	0.1643	7.8000e-004	0.1651	0.0436	7.1000e-004	0.0443		142.1522	142.1522	3.3200e-003	3.2200e-003	143.1960
Total	**0.4268**	**23.1023**	**6.0777**	**0.1061**	**3.2511**	**0.1959**	**3.4470**	**0.8897**	**0.1874**	**1.0771**		**11,566.0948**	**11,566.0948**	**0.3859**	**1.8137**	**12,116.2367**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					23.0250	0.0000	23.0250	5.1531	0.0000	5.1531			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**23.0250**	**0.1015**	**23.1265**	**5.1531**	**0.1015**	**5.2546**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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3.2 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3763	23.0746	5.6320	0.1047	3.0868	0.1951	3.2819	0.8461	0.1867	1.0328		11,423.9426	11,423.9426	0.3825	1.8105	11,973.0407
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0505	0.0278	0.4456	1.3800e-003	0.1643	7.8000e-004	0.1651	0.0436	7.1000e-004	0.0443		142.1522	142.1522	3.3200e-003	3.2200e-003	143.1960
Total	**0.4268**	**23.1023**	**6.0777**	**0.1061**	**3.2511**	**0.1959**	**3.4470**	**0.8897**	**0.1874**	**1.0771**		**11,566.0948**	**11,566.0948**	**0.3859**	**1.8137**	**12,116.2367**

3.3 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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3.3 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2393	9.9181	3.0549	0.0454	1.5714	0.0607	1.6321	0.4524	0.0581	0.5105		4,878.0242	4,878.0242	0.1021	0.7207	5,095.3579
Worker	1.4098	0.7425	12.4033	0.0396	4.8796	0.0221	4.9016	1.2943	0.0203	1.3146		4,120.5091	4,120.5091	0.0895	0.0898	4,149.4973
Total	**1.6491**	**10.6606**	**15.4581**	**0.0850**	**6.4509**	**0.0828**	**6.5337**	**1.7467**	**0.0784**	**1.8251**		**8,998.5333**	**8,998.5333**	**0.1916**	**0.8105**	**9,244.8552**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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3.3 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2393	9.9181	3.0549	0.0454	1.5714	0.0607	1.6321	0.4524	0.0581	0.5105		4,878.0242	4,878.0242	0.1021	0.7207	5,095.3579
Worker	1.4098	0.7425	12.4033	0.0396	4.8796	0.0221	4.9016	1.2943	0.0203	1.3146		4,120.5091	4,120.5091	0.0895	0.0898	4,149.4973
Total	**1.6491**	**10.6606**	**15.4581**	**0.0850**	**6.4509**	**0.0828**	**6.5337**	**1.7467**	**0.0784**	**1.8251**		**8,998.5333**	**8,998.5333**	**0.1916**	**0.8105**	**9,244.8552**

3.4 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	3.2357					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.1509**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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3.4 Paving - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0285	0.0135	0.2581	8.9000e-004	0.1232	4.4000e-004	0.1237	0.0327	4.0000e-004	0.0331		95.9207	95.9207	1.6100e-003	1.8800e-003	96.5213
Total	**0.0285**	**0.0135**	**0.2581**	**8.9000e-004**	**0.1232**	**4.4000e-004**	**0.1237**	**0.0327**	**4.0000e-004**	**0.0331**		**95.9207**	**95.9207**	**1.6100e-003**	**1.8800e-003**	**96.5213**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	3.2357					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.5162**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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3.4 Paving - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0285	0.0135	0.2581	8.9000e-004	0.1232	4.4000e-004	0.1237	0.0327	4.0000e-004	0.0331		95.9207	95.9207	1.6100e-003	1.8800e-003	96.5213
Total	**0.0285**	**0.0135**	**0.2581**	**8.9000e-004**	**0.1232**	**4.4000e-004**	**0.1237**	**0.0327**	**4.0000e-004**	**0.0331**		**95.9207**	**95.9207**	**1.6100e-003**	**1.8800e-003**	**96.5213**

3.5 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	679.4783					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**679.6491**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2262	0.1072	2.0473	7.0900e-003	0.9776	3.4800e-003	0.9810	0.2593	3.2100e-003	0.2625		760.9708	760.9708	0.0128	0.0149	765.7356
Total	**0.2262**	**0.1072**	**2.0473**	**7.0900e-003**	**0.9776**	**3.4800e-003**	**0.9810**	**0.2593**	**3.2100e-003**	**0.2625**		**760.9708**	**760.9708**	**0.0128**	**0.0149**	**765.7356**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	679.4783					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**679.5080**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2262	0.1072	2.0473	7.0900e-003	0.9776	3.4800e-003	0.9810	0.2593	3.2100e-003	0.2625		760.9708	760.9708	0.0128	0.0149	765.7356
Total	**0.2262**	**0.1072**	**2.0473**	**7.0900e-003**	**0.9776**	**3.4800e-003**	**0.9810**	**0.2593**	**3.2100e-003**	**0.2625**		**760.9708**	**760.9708**	**0.0128**	**0.0149**	**765.7356**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.7349	6.4624	58.5067	0.1238	13.8089	0.0884	13.8973	3.6780	0.0823	3.7603		12,990.9549	12,990.9549	0.7998	0.5866	13,185.7585
Unmitigated	7.7349	6.4624	58.5067	0.1238	13.8089	0.0884	13.8973	3.6780	0.0823	3.7603		12,990.9549	12,990.9549	0.7998	0.5866	13,185.7585

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	3,588.63	3,588.63	3588.63	6,560,272	6,560,272
Total	3,588.63	3,588.63	3,588.63	6,560,272	6,560,272

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	3.11	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	4.05	3.11	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.554285	0.058871	0.188253	0.120585	0.022598	0.005697	0.010798	0.007525	0.000977	0.000545	0.026246	0.000848	0.002771
Unrefrigerated Warehouse-No Rail	0.554285	0.058871	0.188253	0.120585	0.022598	0.005697	0.010798	0.007525	0.000977	0.000545	0.026246	0.000848	0.002771

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0768	0.6981	0.5864	4.1900e-003		0.0531	0.0531		0.0531	0.0531		837.6857	837.6857	0.0161	0.0154	842.6637
NaturalGas Unmitigated	0.0768	0.6981	0.5864	4.1900e-003		0.0531	0.0531		0.0531	0.0531		837.6857	837.6857	0.0161	0.0154	842.6637

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	7120.33	0.0768	0.6981	0.5864	4.1900e-003		0.0531	0.0531		0.0531	0.0531		837.6857	837.6857	0.0161	0.0154	842.6637
Total		**0.0768**	**0.6981**	**0.5864**	**4.1900e-003**		**0.0531**	**0.0531**		**0.0531**	**0.0531**		**837.6857**	**837.6857**	**0.0161**	**0.0154**	**842.6637**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	7.12033	0.0768	0.6981	0.5864	4.1900e-003		0.0531	0.0531		0.0531	0.0531		837.6857	837.6857	0.0161	0.0154	842.6637
Total		**0.0768**	**0.6981**	**0.5864**	**4.1900e-003**		**0.0531**	**0.0531**		**0.0531**	**0.0531**		**837.6857**	**837.6857**	**0.0161**	**0.0154**	**842.6637**

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SMPs Project (SMP 39) - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.6575	2.2200e-003	0.2447	2.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004		0.5258	0.5258	1.3700e-003		0.5600
Unmitigated	18.6575	2.2200e-003	0.2447	2.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004		0.5258	0.5258	1.3700e-003		0.5600

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2339					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	16.4011					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0225	2.2200e-003	0.2447	2.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004		0.5258	0.5258	1.3700e-003		0.5600
Total	**18.6575**	**2.2200e-003**	**0.2447**	**2.0000e-005**		**8.7000e-004**	**8.7000e-004**		**8.7000e-004**	**8.7000e-004**		**0.5258**	**0.5258**	**1.3700e-003**		**0.5600**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2339					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	16.4011					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0225	2.2200e-003	0.2447	2.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004		0.5258	0.5258	1.3700e-003		0.5600
Total	**18.6575**	**2.2200e-003**	**0.2447**	**2.0000e-005**		**8.7000e-004**	**8.7000e-004**		**8.7000e-004**	**8.7000e-004**		**0.5258**	**0.5258**	**1.3700e-003**		**0.5600**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	8	8.00	260	89	0.20	Electrical
Forklifts	22	8.00	260	89	0.20	CNG

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	0.4409	21.0684	210.3056	0.0336		0.4089	0.4089		0.4089	0.4089	0.0000	4,252.6357	4,252.6357	1.3754		4,287.0204
Total	**0.4409**	**21.0684**	**210.3056**	**0.0336**		**0.4089**	**0.4089**		**0.4089**	**0.4089**	**0.0000**	**4,252.6357**	**4,252.6357**	**1.3754**		**4,287.0204**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0.01	3	201	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	9.9000e-003	0.0277	0.0252	5.0000e-005		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		5.0623	5.0623	7.1000e-004		5.0800
Total	**9.9000e-003**	**0.0277**	**0.0252**	**5.0000e-005**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**5.0623**	**5.0623**	**7.1000e-004**		**5.0800**

11.0 Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

SMPs Project (SMP 39)

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	755.50	1000sqft	44.28	755,500.00	0
Parking Lot	1,647.00	Space	14.82	658,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - Consistent with the DEIR's model.

Construction Phase - See SWAPE's comment on "Unsubstantiated Changes to Individual Construction Phase Lengths."

Grading - Consistent with the DEIR's model.

Vehicle Trips - Consistent with the DEIR's model.

Construction Off-road Equipment Mitigation - Consistent with the DEIR's model.

Operational Off-Road Equipment - Consistent with the DEIR's model.

Stationary Sources - Emergency Generators and Fire Pumps - Consistent with the DEIR's model.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	75.00	12.00
tblConstructionPhase	NumDays	1,110.00	176.00
tblConstructionPhase	NumDays	110.00	17.00
tblConstructionPhase	NumDays	75.00	12.00

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tblGrading	AcresOfGrading	51.00	270.00
tblGrading	MaterialImported	0.00	24,000.00
tblLandUse	LotAcreage	17.34	44.28
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	8.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	22.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.01
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	3.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	CC_TL	7.30	3.11
tblVehicleTrips	CC_TL	7.30	3.11
tblVehicleTrips	CW_TL	9.50	4.05
tblVehicleTrips	ST_TR	1.74	4.75
tblVehicleTrips	SU_TR	1.74	4.75
tblVehicleTrips	WD_TR	1.74	4.75

2.0 Emissions Summary

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SMPs Project (SMP 39) - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	3.6235	56.8172	33.8551	0.1682	26.2760	1.5316	27.8076	6.0428	1.4163	7.4590	0.0000	17,576.7018	17,576.7018	2.3287	1.8161	18,176.1038
2025	3.0541	23.8803	31.2009	0.1092	6.4509	0.6106	7.0615	1.7467	0.5749	2.3215	0.0000	11,271.3698	11,271.3698	0.8048	0.8258	11,537.5656
2029	679.8858	8.5983	14.8282	0.0236	0.9776	0.4190	1.0326	0.2593	0.3854	0.4181	0.0000	2,295.9121	2,295.9121	0.7156	0.0171	2,314.4449
Maximum	**679.8858**	**56.8172**	**33.8551**	**0.1682**	**26.2760**	**1.5316**	**27.8076**	**6.0428**	**1.4163**	**7.4590**	**0.0000**	**17,576.7018**	**17,576.7018**	**2.3287**	**1.8161**	**18,176.1038**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.1669	27.7403	39.1314	0.1682	26.2760	0.2977	26.5738	6.0428	0.2892	6.3320	0.0000	17,576.7018	17,576.7018	2.3287	1.8161	18,176.1038
2025	2.0145	13.6454	32.5764	0.1092	6.4509	0.1238	6.5747	1.7467	0.1194	1.8661	0.0000	11,271.3698	11,271.3698	0.8048	0.8258	11,537.5656
2029	679.7447	1.2320	17.5459	0.0236	0.9776	0.0378	0.9850	0.2593	0.0378	0.2665	0.0000	2,295.9121	2,295.9121	0.7156	0.0171	2,314.4449
Maximum	**679.7447**	**27.7403**	**39.1314**	**0.1682**	**26.2760**	**0.2977**	**26.5738**	**6.0428**	**0.2892**	**6.3320**	**0.0000**	**17,576.7018**	**17,576.7018**	**2.3287**	**1.8161**	**18,176.1038**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.53	52.27	-11.73	0.00	0.00	82.06	4.93	0.00	81.22	17.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.6575	2.2200e-003	0.2447	2.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004		0.5258	0.5258	1.3700e-003		0.5600
Energy	0.0768	0.6981	0.5864	4.1900e-003		0.0531	0.0531		0.0531	0.0531		837.6857	837.6857	0.0161	0.0154	842.6637
Mobile	6.8113	7.4245	64.1841	0.1170	13.8089	0.0884	13.8973	3.6780	0.0823	3.7603		12,280.4311	12,280.4311	0.9176	0.6436	12,495.1480
Offroad	0.4409	21.0684	210.3056	0.0336		0.4089	0.4089		0.4089	0.4089	0.0000	4,252.6357	4,252.6357	1.3754		4,287.0204
Stationary	9.9000e-003	0.0277	0.0252	5.0000e-005		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		5.0623	5.0623	7.1000e-004		5.0800
Total	**25.9964**	**29.2208**	**275.3459**	**0.1549**	**13.8089**	**0.5527**	**14.3616**	**3.6780**	**0.5466**	**4.2246**	**0.0000**	**17,376.3406**	**17,376.3406**	**2.3111**	**0.6589**	**17,630.4721**

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.6575	2.2200e-003	0.2447	2.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004		0.5258	0.5258	1.3700e-003		0.5600
Energy	0.0768	0.6981	0.5864	4.1900e-003		0.0531	0.0531		0.0531	0.0531		837.6857	837.6857	0.0161	0.0154	842.6637
Mobile	6.8113	7.4245	64.1841	0.1170	13.8089	0.0884	13.8973	3.6780	0.0823	3.7603		12,280.4311	12,280.4311	0.9176	0.6436	12,495.1480
Offroad	0.4409	21.0684	210.3056	0.0336		0.4089	0.4089		0.4089	0.4089	0.0000	4,252.6357	4,252.6357	1.3754		4,287.0204
Stationary	9.9000e-003	0.0277	0.0252	5.0000e-005		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		5.0623	5.0623	7.1000e-004		5.0800
Total	**25.9964**	**29.2208**	**275.3459**	**0.1549**	**13.8089**	**0.5527**	**14.3616**	**3.6780**	**0.5466**	**4.2246**	**0.0000**	**17,376.3406**	**17,376.3406**	**2.3111**	**0.6589**	**17,630.4721**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	9/2/2024	9/24/2024	5	17	
2	Building Construction	Building Construction	2/1/2025	10/6/2025	5	176	
3	Paving	Paving	5/5/2029	5/22/2029	5	12	

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4	Architectural Coating	Architectural Coating	8/18/2029	9/4/2029	5	12	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 270

Acres of Paving: 14.82

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,133,250; Non-Residential Outdoor: 377,750; Striped Parking Area: 39,528 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
G g	8	20.00	0.00	3,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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Building Construction	9	594.00	232.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	119.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					23.0250	0.0000	23.0250	5.1531	0.0000	5.1531			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**23.0250**	**1.3354**	**24.3604**	**5.1531**	**1.2286**	**6.3817**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3534	24.4060	5.7040	0.1048	3.0868	0.1954	3.2822	0.8461	0.1870	1.0331		11,434.8556	11,434.8556	0.3813	1.8124	11,984.4658
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0520	0.0342	0.4283	1.2800e-003	0.1643	7.8000e-004	0.1651	0.0436	7.1000e-004	0.0443		132.0975	132.0975	3.7900e-003	3.7100e-003	133.2975
Total	**0.4054**	**24.4402**	**6.1323**	**0.1061**	**3.2511**	**0.1962**	**3.4473**	**0.8897**	**0.1877**	**1.0774**		**11,566.9531**	**11,566.9531**	**0.3850**	**1.8161**	**12,117.7633**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					23.0250	0.0000	23.0250	5.1531	0.0000	5.1531			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**23.0250**	**0.1015**	**23.1265**	**5.1531**	**0.1015**	**5.2546**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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3.2 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3534	24.4060	5.7040	0.1048	3.0868	0.1954	3.2822	0.8461	0.1870	1.0331		11,434.8556	11,434.8556	0.3813	1.8124	11,984.4658
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0520	0.0342	0.4283	1.2800e-003	0.1643	7.8000e-004	0.1651	0.0436	7.1000e-004	0.0443		132.0975	132.0975	3.7900e-003	3.7100e-003	133.2975
Total	**0.4054**	**24.4402**	**6.1323**	**0.1061**	**3.2511**	**0.1962**	**3.4473**	**0.8897**	**0.1877**	**1.0774**		**11,566.9531**	**11,566.9531**	**0.3850**	**1.8161**	**12,117.7633**

3.3 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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3.3 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2301	10.4950	3.1618	0.0455	1.5714	0.0610	1.6323	0.4524	0.0583	0.5107		4,885.3051	4,885.3051	0.1015	0.7225	5,103.1522
Worker	1.4566	0.9157	11.9544	0.0368	4.8796	0.0221	4.9016	1.2943	0.0203	1.3146		3,829.5904	3,829.5904	0.1024	0.1032	3,862.9153
Total	**1.6867**	**11.4107**	**15.1162**	**0.0823**	**6.4509**	**0.0830**	**6.5339**	**1.7467**	**0.0786**	**1.8253**		**8,714.8955**	**8,714.8955**	**0.2039**	**0.8258**	**8,966.0675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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3.3 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2301	10.4950	3.1618	0.0455	1.5714	0.0610	1.6323	0.4524	0.0583	0.5107		4,885.3051	4,885.3051	0.1015	0.7225	5,103.1522
Worker	1.4566	0.9157	11.9544	0.0368	4.8796	0.0221	4.9016	1.2943	0.0203	1.3146		3,829.5904	3,829.5904	0.1024	0.1032	3,862.9153
Total	**1.6867**	**11.4107**	**15.1162**	**0.0823**	**6.4509**	**0.0830**	**6.5339**	**1.7467**	**0.0786**	**1.8253**		**8,714.8955**	**8,714.8955**	**0.2039**	**0.8258**	**8,966.0675**

3.4 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	3.2357					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.1509**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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3.4 Paving - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0298	0.0167	0.2503	8.3000e-004	0.1232	4.4000e-004	0.1237	0.0327	4.0000e-004	0.0331		89.1670	89.1670	1.8600e-003	2.1600e-003	89.8571
Total	**0.0298**	**0.0167**	**0.2503**	**8.3000e-004**	**0.1232**	**4.4000e-004**	**0.1237**	**0.0327**	**4.0000e-004**	**0.0331**		**89.1670**	**89.1670**	**1.8600e-003**	**2.1600e-003**	**89.8571**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	3.2357					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.5162**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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3.4 Paving - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0298	0.0167	0.2503	8.3000e-004	0.1232	4.4000e-004	0.1237	0.0327	4.0000e-004	0.0331		89.1670	89.1670	1.8600e-003	2.1600e-003	89.8571
Total	**0.0298**	**0.0167**	**0.2503**	**8.3000e-004**	**0.1232**	**4.4000e-004**	**0.1237**	**0.0327**	**4.0000e-004**	**0.0331**		**89.1670**	**89.1670**	**1.8600e-003**	**2.1600e-003**	**89.8571**

3.5 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	679.4783					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**679.6491**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2367	0.1321	1.9853	6.5900e-003	0.9776	3.4800e-003	0.9810	0.2593	3.2100e-003	0.2625		707.3914	707.3914	0.0148	0.0171	712.8664
Total	**0.2367**	**0.1321**	**1.9853**	**6.5900e-003**	**0.9776**	**3.4800e-003**	**0.9810**	**0.2593**	**3.2100e-003**	**0.2625**		**707.3914**	**707.3914**	**0.0148**	**0.0171**	**712.8664**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	679.4783					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**679.5080**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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3.5 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2367	0.1321	1.9853	6.5900e-003	0.9776	3.4800e-003	0.9810	0.2593	3.2100e-003	0.2625		707.3914	707.3914	0.0148	0.0171	712.8664
Total	**0.2367**	**0.1321**	**1.9853**	**6.5900e-003**	**0.9776**	**3.4800e-003**	**0.9810**	**0.2593**	**3.2100e-003**	**0.2625**		**707.3914**	**707.3914**	**0.0148**	**0.0171**	**712.8664**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.8113	7.4245	64.1841	0.1170	13.8089	0.0884	13.8973	3.6780	0.0823	3.7603		12,280.4311	12,280.4311	0.9176	0.6436	12,495.1480
Unmitigated	6.8113	7.4245	64.1841	0.1170	13.8089	0.0884	13.8973	3.6780	0.0823	3.7603		12,280.4311	12,280.4311	0.9176	0.6436	12,495.1480

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	3,588.63	3,588.63	3588.63	6,560,272	6,560,272
Total	3,588.63	3,588.63	3,588.63	6,560,272	6,560,272

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	3.11	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	4.05	3.11	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.554285	0.058871	0.188253	0.120585	0.022598	0.005697	0.010798	0.007525	0.000977	0.000545	0.026246	0.000848	0.002771
Unrefrigerated Warehouse-No Rail	0.554285	0.058871	0.188253	0.120585	0.022598	0.005697	0.010798	0.007525	0.000977	0.000545	0.026246	0.000848	0.002771

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0768	0.6981	0.5864	4.1900e-003		0.0531	0.0531		0.0531	0.0531		837.6857	837.6857	0.0161	0.0154	842.6637
NaturalGas Unmitigated	0.0768	0.6981	0.5864	4.1900e-003		0.0531	0.0531		0.0531	0.0531		837.6857	837.6857	0.0161	0.0154	842.6637

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	7120.33	0.0768	0.6981	0.5864	4.1900e-003		0.0531	0.0531		0.0531	0.0531		837.6857	837.6857	0.0161	0.0154	842.6637
Total		**0.0768**	**0.6981**	**0.5864**	**4.1900e-003**		**0.0531**	**0.0531**		**0.0531**	**0.0531**		**837.6857**	**837.6857**	**0.0161**	**0.0154**	**842.6637**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	7.12033	0.0768	0.6981	0.5864	4.1900e-003		0.0531	0.0531		0.0531	0.0531		837.6857	837.6857	0.0161	0.0154	842.6637
Total		**0.0768**	**0.6981**	**0.5864**	**4.1900e-003**		**0.0531**	**0.0531**		**0.0531**	**0.0531**		**837.6857**	**837.6857**	**0.0161**	**0.0154**	**842.6637**

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.6575	2.2200e-003	0.2447	2.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004		0.5258	0.5258	1.3700e-003		0.5600
Unmitigated	18.6575	2.2200e-003	0.2447	2.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004		0.5258	0.5258	1.3700e-003		0.5600

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2339					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	16.4011					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0225	2.2200e-003	0.2447	2.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004		0.5258	0.5258	1.3700e-003		0.5600
Total	**18.6575**	**2.2200e-003**	**0.2447**	**2.0000e-005**		**8.7000e-004**	**8.7000e-004**		**8.7000e-004**	**8.7000e-004**		**0.5258**	**0.5258**	**1.3700e-003**		**0.5600**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2339					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	16.4011					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0225	2.2200e-003	0.2447	2.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004		0.5258	0.5258	1.3700e-003		0.5600
Total	**18.6575**	**2.2200e-003**	**0.2447**	**2.0000e-005**		**8.7000e-004**	**8.7000e-004**		**8.7000e-004**	**8.7000e-004**		**0.5258**	**0.5258**	**1.3700e-003**		**0.5600**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	8	8.00	260	89	0.20	Electrical
Forklifts	22	8.00	260	89	0.20	CNG

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UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	0.4409	21.0684	210.3056	0.0336		0.4089	0.4089		0.4089	0.4089	0.0000	4,252.6357	4,252.6357	1.3754		4,287.0204
Total	**0.4409**	**21.0684**	**210.3056**	**0.0336**		**0.4089**	**0.4089**		**0.4089**	**0.4089**	**0.0000**	**4,252.6357**	**4,252.6357**	**1.3754**		**4,287.0204**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0.01	3	201	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

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10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	9.9000e-003	0.0277	0.0252	5.0000e-005		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		5.0623	5.0623	7.1000e-004		5.0800
Total	**9.9000e-003**	**0.0277**	**0.0252**	**5.0000e-005**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**5.0623**	**5.0623**	**7.1000e-004**		**5.0800**

11.0 Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

SMPs Project - SMP 40

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	758.81	1000sqft	33.31	758,808.00	0
Parking Lot	799.00	Space	7.19	319,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - Consistent with the DEIR's model.

Construction Phase - See SWAPE's comment on "Unsubstantiated Changes to Individual Construction Phase Lengths."

Trips and VMT - Consistent with the DEIR's model.

Grading - Consistent with the DEIR's model.

Vehicle Trips - Consistent with the DEIR's model.

Construction Off-road Equipment Mitigation - Consistent with the DEIR's model.

Operational Off-Road Equipment - Consistent with the DEIR's model.

Stationary Sources - Emergency Generators and Fire Pumps - Consistent with the DEIR's model.

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	55.00	20.00
tblConstructionPhase	NumDays	740.00	272.00

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tblConstructionPhase	NumDays	75.00	28.00
tblConstructionPhase	NumDays	55.00	20.00
tblGrading	AcresOfGrading	84.00	225.00
tblLandUse	LandUseSquareFeet	758,810.00	758,808.00
tblLandUse	LotAcreage	17.42	33.31
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	22.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	8.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.01
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	3.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblVehicleTrips	CC_TL	7.30	9.79
tblVehicleTrips	CC_TL	7.30	9.79
tblVehicleTrips	CW_TL	9.50	12.75
tblVehicleTrips	ST_TR	1.74	1.40
tblVehicleTrips	SU_TR	1.74	1.40
tblVehicleTrips	WD_TR	1.74	1.40

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1319	1.1521	1.2327	3.5900e-003	0.3433	0.0421	0.3854	0.0972	0.0392	0.1364	0.0000	327.9871	327.9871	0.0451	0.0173	334.2617
2024	4.3402	2.4658	3.1783	0.0101	0.5157	0.0778	0.5935	0.1401	0.0732	0.2132	0.0000	937.8593	937.8593	0.0809	0.0623	958.4391
Maximum	**4.3402**	**2.4658**	**3.1783**	**0.0101**	**0.5157**	**0.0778**	**0.5935**	**0.1401**	**0.0732**	**0.2132**	**0.0000**	**937.8593**	**937.8593**	**0.0809**	**0.0623**	**958.4391**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0600	0.3627	1.3373	3.5900e-003	0.3433	4.4900e-003	0.3478	0.0972	4.3800e-003	0.1016	0.0000	327.9869	327.9869	0.0451	0.0173	334.2615
2024	4.2092	1.1725	3.3436	0.0101	0.5157	0.0117	0.5273	0.1401	0.0113	0.1514	0.0000	937.8590	937.8590	0.0809	0.0623	958.4388
Maximum	**4.2092**	**1.1725**	**3.3436**	**0.0101**	**0.5157**	**0.0117**	**0.5273**	**0.1401**	**0.0113**	**0.1514**	**0.0000**	**937.8590**	**937.8590**	**0.0809**	**0.0623**	**958.4388**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	4.54	57.57	-6.12	0.00	0.00	86.53	10.60	0.00	86.05	27.66	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2023	11-30-2023	1.0209	0.2944
2	12-1-2023	2-29-2024	0.8288	0.4158
3	3-1-2024	5-31-2024	0.8109	0.4050
4	6-1-2024	8-31-2024	0.8040	0.3982
5	9-1-2024	9-30-2024	0.2622	0.1298
		Highest	1.0209	0.4158

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.3878	1.3000e-004	0.0143	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0278	0.0278	7.0000e-005	0.0000	0.0297
Energy	0.0141	0.1280	0.1075	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003	0.0000	395.3725	395.3725	0.0441	7.5800e-003	398.7324
Mobile	0.5284	0.6623	5.5165	0.0125	1.3981	8.9700e-003	1.4070	0.3735	8.3600e-003	0.3819	0.0000	1,181.3396	1,181.3396	0.0665	0.0518	1,198.4310
Offroad	0.0573	2.7389	27.3397	4.3700e-003		0.0532	0.0532		0.0532	0.0532	0.0000	501.5298	501.5298	0.1622	0.0000	505.5849
Stationary	9.9000e-004	2.7700e-003	2.5200e-003	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.4592	0.4592	6.0000e-005	0.0000	0.4609
Waste						0.0000	0.0000		0.0000	0.0000	144.7894	0.0000	144.7894	8.5568	0.0000	358.7096
Water						0.0000	0.0000		0.0000	0.0000	55.6701	87.8508	143.5209	5.7321	0.1367	327.5690
Total	**3.9886**	**3.5320**	**32.9805**	**0.0176**	**1.3981**	**0.0720**	**1.4701**	**0.3735**	**0.0714**	**0.4449**	**200.4595**	**2,166.5797**	**2,367.0392**	**14.5618**	**0.1961**	**2,789.5173**

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.3878	1.3000e-004	0.0143	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0278	0.0278	7.0000e-005	0.0000	0.0297
Energy	0.0141	0.1280	0.1075	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003	0.0000	395.3725	395.3725	0.0441	7.5800e-003	398.7324
Mobile	0.5284	0.6623	5.5165	0.0125	1.3981	8.9700e-003	1.4070	0.3735	8.3600e-003	0.3819	0.0000	1,181.3396	1,181.3396	0.0665	0.0518	1,198.4310
Offroad	0.0573	2.7389	27.3397	4.3700e-003		0.0532	0.0532		0.0532	0.0532	0.0000	501.5298	501.5298	0.1622	0.0000	505.5849
Stationary	9.9000e-004	2.7700e-003	2.5200e-003	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.4592	0.4592	6.0000e-005	0.0000	0.4609
Waste						0.0000	0.0000		0.0000	0.0000	144.7894	0.0000	144.7894	8.5568	0.0000	358.7096
Water						0.0000	0.0000		0.0000	0.0000	55.6701	87.8508	143.5209	5.7321	0.1367	327.5690
Total	**3.9886**	**3.5320**	**32.9805**	**0.0176**	**1.3981**	**0.0720**	**1.4701**	**0.3735**	**0.0714**	**0.4449**	**200.4595**	**2,166.5797**	**2,367.0392**	**14.5618**	**0.1961**	**2,789.5173**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	9/1/2023	10/10/2023	5	28	
2	Building Construction	Building Construction	10/11/2023	10/24/2024	5	272	
3	Paving	Paving	10/25/2024	11/21/2024	5	20	
4	Architectural Coating	Architectural Coating	11/22/2024	12/19/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 225

Acres of Paving: 7.19

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,138,212; Non-Residential Outdoor: 379,404; Striped Parking Area: 19,176 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Ar ctural Coating	Air Compressors	1	6.00	78	0.48

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	453.00	177.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	91.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2036	0.0000	0.2036	0.0592	0.0000	0.0592	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0465	0.4832	0.3927	8.7000e-004		0.0199	0.0199		0.0184	0.0184	0.0000	76.3493	76.3493	0.0247	0.0000	76.9666
Total	**0.0465**	**0.4832**	**0.3927**	**8.7000e-004**	**0.2036**	**0.0199**	**0.2236**	**0.0592**	**0.0184**	**0.0776**	**0.0000**	**76.3493**	**76.3493**	**0.0247**	**0.0000**	**76.9666**

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3.2 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	4.9000e-004	6.2100e-003	2.0000e-005	2.2100e-003	1.0000e-005	2.2200e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.7340	1.7340	5.0000e-005	5.0000e-005	1.7495
Total	**7.2000e-004**	**4.9000e-004**	**6.2100e-003**	**2.0000e-005**	**2.2100e-003**	**1.0000e-005**	**2.2200e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.7340**	**1.7340**	**5.0000e-005**	**5.0000e-005**	**1.7495**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2036	0.0000	0.2036	0.0592	0.0000	0.0592	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0107	0.0462	0.4620	8.7000e-004		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	76.3492	76.3492	0.0247	0.0000	76.9665
Total	**0.0107**	**0.0462**	**0.4620**	**8.7000e-004**	**0.2036**	**1.4200e-003**	**0.2050**	**0.0592**	**1.4200e-003**	**0.0607**	**0.0000**	**76.3492**	**76.3492**	**0.0247**	**0.0000**	**76.9665**

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3.2 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	4.9000e-004	6.2100e-003	2.0000e-005	2.2100e-003	1.0000e-005	2.2200e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.7340	1.7340	5.0000e-005	5.0000e-005	1.7495
Total	**7.2000e-004**	**4.9000e-004**	**6.2100e-003**	**2.0000e-005**	**2.2100e-003**	**1.0000e-005**	**2.2200e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.7340**	**1.7340**	**5.0000e-005**	**5.0000e-005**	**1.7495**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0456	0.4172	0.4711	7.8000e-004		0.0203	0.0203		0.0191	0.0191	0.0000	67.2234	67.2234	0.0160	0.0000	67.6232
Total	**0.0456**	**0.4172**	**0.4711**	**7.8000e-004**		**0.0203**	**0.0203**		**0.0191**	**0.0191**	**0.0000**	**67.2234**	**67.2234**	**0.0160**	**0.0000**	**67.6232**

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3.3 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4700e-003	0.2282	0.0714	1.0400e-003	0.0337	1.3400e-003	0.0350	9.7400e-003	1.2800e-003	0.0110	0.0000	101.3231	101.3231	2.0700e-003	0.0150	105.8414
Worker	0.0336	0.0230	0.2913	8.8000e-004	0.1038	5.4000e-004	0.1043	0.0276	4.9000e-004	0.0281	0.0000	81.3573	81.3573	2.3400e-003	2.2300e-003	82.0810
Total	**0.0391**	**0.2512**	**0.3627**	**1.9200e-003**	**0.1375**	**1.8800e-003**	**0.1394**	**0.0374**	**1.7700e-003**	**0.0391**	**0.0000**	**182.6804**	**182.6804**	**4.4100e-003**	**0.0172**	**187.9225**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.5100e-003	0.0648	0.5064	7.8000e-004		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	67.2233	67.2233	0.0160	0.0000	67.6231
Total	**9.5100e-003**	**0.0648**	**0.5064**	**7.8000e-004**		**1.1800e-003**	**1.1800e-003**		**1.1800e-003**	**1.1800e-003**	**0.0000**	**67.2233**	**67.2233**	**0.0160**	**0.0000**	**67.6231**

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3.3 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4700e-003	0.2282	0.0714	1.0400e-003	0.0337	1.3400e-003	0.0350	9.7400e-003	1.2800e-003	0.0110	0.0000	101.3231	101.3231	2.0700e-003	0.0150	105.8414
Worker	0.0336	0.0230	0.2913	8.8000e-004	0.1038	5.4000e-004	0.1043	0.0276	4.9000e-004	0.0281	0.0000	81.3573	81.3573	2.3400e-003	2.2300e-003	82.0810
Total	**0.0391**	**0.2512**	**0.3627**	**1.9200e-003**	**0.1375**	**1.8800e-003**	**0.1394**	**0.0374**	**1.7700e-003**	**0.0391**	**0.0000**	**182.6804**	**182.6804**	**4.4100e-003**	**0.0172**	**187.9225**

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1575	1.4385	1.7299	2.8800e-003		0.0656	0.0656		0.0617	0.0617	0.0000	248.0785	248.0785	0.0587	0.0000	249.5451
Total	**0.1575**	**1.4385**	**1.7299**	**2.8800e-003**		**0.0656**	**0.0656**		**0.0617**	**0.0617**	**0.0000**	**248.0785**	**248.0785**	**0.0587**	**0.0000**	**249.5451**

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3.3 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0196	0.8424	0.2579	3.7800e-003	0.1243	4.9700e-003	0.1292	0.0359	4.7500e-003	0.0407	0.0000	368.0218	368.0218	7.5800e-003	0.0544	384.4322
Worker	0.1161	0.0758	1.0042	3.1300e-003	0.3830	1.8800e-003	0.3849	0.1019	1.7300e-003	0.1036	0.0000	292.7766	292.7766	7.8300e-003	7.6800e-003	295.2595
Total	**0.1357**	**0.9182**	**1.2621**	**6.9100e-003**	**0.5073**	**6.8500e-003**	**0.5141**	**0.1378**	**6.4800e-003**	**0.1443**	**0.0000**	**660.7983**	**660.7983**	**0.0154**	**0.0621**	**679.6918**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0351	0.2391	1.8682	2.8800e-003		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003	0.0000	248.0783	248.0783	0.0587	0.0000	249.5448
Total	**0.0351**	**0.2391**	**1.8682**	**2.8800e-003**		**4.3600e-003**	**4.3600e-003**		**4.3600e-003**	**4.3600e-003**	**0.0000**	**248.0783**	**248.0783**	**0.0587**	**0.0000**	**249.5448**

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3.3 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0196	0.8424	0.2579	3.7800e-003	0.1243	4.9700e-003	0.1292	0.0359	4.7500e-003	0.0407	0.0000	368.0218	368.0218	7.5800e-003	0.0544	384.4322
Worker	0.1161	0.0758	1.0042	3.1300e-003	0.3830	1.8800e-003	0.3849	0.1019	1.7300e-003	0.1036	0.0000	292.7766	292.7766	7.8300e-003	7.6800e-003	295.2595
Total	**0.1357**	**0.9182**	**1.2621**	**6.9100e-003**	**0.5073**	**6.8500e-003**	**0.5141**	**0.1378**	**6.4800e-003**	**0.1443**	**0.0000**	**660.7983**	**660.7983**	**0.0154**	**0.0621**	**679.6918**

3.4 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	9.4200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0193**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.3000e-004	3.1100e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9060	0.9060	2.0000e-005	2.0000e-005	0.9137
Total	**3.6000e-004**	**2.3000e-004**	**3.1100e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9060**	**0.9060**	**2.0000e-005**	**2.0000e-005**	**0.9137**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	9.4200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0122**	**0.0122**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

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3.4 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.3000e-004	3.1100e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9060	0.9060	2.0000e-005	2.0000e-005	0.9137
Total	**3.6000e-004**	**2.3000e-004**	**3.1100e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9060**	**0.9060**	**2.0000e-005**	**2.0000e-005**	**0.9137**

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.0234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**4.0252**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1800e-003	1.4200e-003	0.0189	6.0000e-005	7.1900e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	5.4966	5.4966	1.5000e-004	1.4000e-004	5.5432
Total	**2.1800e-003**	**1.4200e-003**	**0.0189**	**6.0000e-005**	**7.1900e-003**	**4.0000e-005**	**7.2300e-003**	**1.9100e-003**	**3.0000e-005**	**1.9500e-003**	**0.0000**	**5.4966**	**5.4966**	**1.5000e-004**	**1.4000e-004**	**5.5432**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.0234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**4.0237**	**1.2900e-003**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

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3.5 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1800e-003	1.4200e-003	0.0189	6.0000e-005	7.1900e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	5.4966	5.4966	1.5000e-004	1.4000e-004	5.5432
Total	**2.1800e-003**	**1.4200e-003**	**0.0189**	**6.0000e-005**	**7.1900e-003**	**4.0000e-005**	**7.2300e-003**	**1.9100e-003**	**3.0000e-005**	**1.9500e-003**	**0.0000**	**5.4966**	**5.4966**	**1.5000e-004**	**1.4000e-004**	**5.5432**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5284	0.6623	5.5165	0.0125	1.3981	8.9700e-003	1.4070	0.3735	8.3600e-003	0.3819	0.0000	1,181.3396	1,181.3396	0.0665	0.0518	1,198.4310
Unmitigated	0.5284	0.6623	5.5165	0.0125	1.3981	8.9700e-003	1.4070	0.3735	8.3600e-003	0.3819	0.0000	1,181.3396	1,181.3396	0.0665	0.0518	1,198.4310

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,062.33	1,062.33	1062.33	3,792,923	3,792,923
Total	1,062.33	1,062.33	1,062.33	3,792,923	3,792,923

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	9.79	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	12.75	9.79	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820
Unrefrigerated Warehouse-No Rail	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	256.0769	256.0769	0.0414	5.0200e-003	258.6091
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	256.0769	256.0769	0.0414	5.0200e-003	258.6091
NaturalGas Mitigated	0.0141	0.1280	0.1075	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003	0.0000	139.2955	139.2955	2.6700e-003	2.5500e-003	140.1233
NaturalGas Unmitigated	0.0141	0.1280	0.1075	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003	0.0000	139.2955	139.2955	2.6700e-003	2.5500e-003	140.1233

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	2.6103e+006	0.0141	0.1280	0.1075	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003	0.0000	139.2955	139.2955	2.6700e-003	2.5500e-003	140.1233
Total		**0.0141**	**0.1280**	**0.1075**	**7.7000e-004**		**9.7200e-003**	**9.7200e-003**		**9.7200e-003**	**9.7200e-003**	**0.0000**	**139.2955**	**139.2955**	**2.6700e-003**	**2.5500e-003**	**140.1233**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	2.6103e+006	0.0141	0.1280	0.1075	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003	0.0000	139.2955	139.2955	2.6700e-003	2.5500e-003	140.1233
Total		**0.0141**	**0.1280**	**0.1075**	**7.7000e-004**		**9.7200e-003**	**9.7200e-003**		**9.7200e-003**	**9.7200e-003**	**0.0000**	**139.2955**	**139.2955**	**2.6700e-003**	**2.5500e-003**	**140.1233**

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	111860	10.3497	1.6700e-003	2.0000e-004	10.4521
Unrefrigerated Warehouse-No Rail	2.65583e+006	245.7272	0.0398	4.8200e-003	248.1570
Total		**256.0769**	**0.0414**	**5.0200e-003**	**258.6091**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	111860	10.3497	1.6700e-003	2.0000e-004	10.4521
Unrefrigerated Warehouse-No Rail	2.65583e+006	245.7272	0.0398	4.8200e-003	248.1570
Total		**256.0769**	**0.0414**	**5.0200e-003**	**258.6091**

6. Area Detail

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.3878	1.3000e-004	0.0143	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0278	0.0278	7.0000e-005	0.0000	0.0297
Unmitigated	3.3878	1.3000e-004	0.0143	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0278	0.0278	7.0000e-005	0.0000	0.0297

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9842					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3100e-003	1.3000e-004	0.0143	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0278	0.0278	7.0000e-005	0.0000	0.0297
Total	**3.3878**	**1.3000e-004**	**0.0143**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0278**	**0.0278**	**7.0000e-005**	**0.0000**	**0.0297**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9842					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3100e-003	1.3000e-004	0.0143	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0278	0.0278	7.0000e-005	0.0000	0.0297
Total	**3.3878**	**1.3000e-004**	**0.0143**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0278**	**0.0278**	**7.0000e-005**	**0.0000**	**0.0297**

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	143.5209	5.7321	0.1367	327.5690
Unmitigated	143.5209	5.7321	0.1367	327.5690

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	175.475 / 0	143.5209	5.7321	0.1367	327.5690
Total		**143.5209**	**5.7321**	**0.1367**	**327.5690**

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	175.475 / 0	143.5209	5.7321	0.1367	327.5690
Total		**143.5209**	**5.7321**	**0.1367**	**327.5690**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	144.7894	8.5568	0.0000	358.7096
Unmitigated	144.7894	8.5568	0.0000	358.7096

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	713.28	144.7894	8.5568	0.0000	358.7096
Total		**144.7894**	**8.5568**	**0.0000**	**358.7096**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	713.28	144.7894	8.5568	0.0000	358.7096
Total		**144.7894**	**8.5568**	**0.0000**	**358.7096**

9.1 Operational Offroad

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	22	8.00	260	89	0.20	CNG
Forklifts	8	8.00	260	89	0.20	Electrical

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.0573	2.7389	27.3397	4.3700e-003		0.0532	0.0532		0.0532	0.0532	0.0000	501.5298	501.5298	0.1622	0.0000	505.5849
Total	**0.0573**	**2.7389**	**27.3397**	**4.3700e-003**		**0.0532**	**0.0532**		**0.0532**	**0.0532**	**0.0000**	**501.5298**	**501.5298**	**0.1622**	**0.0000**	**505.5849**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	0.01	3	201	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	9.9000e-004	2.7700e-003	2.5200e-003	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.4592	0.4592	6.0000e-005	0.0000	0.4609
Total	**9.9000e-004**	**2.7700e-003**	**2.5200e-003**	**0.0000**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.4592**	**0.4592**	**6.0000e-005**	**0.0000**	**0.4609**

11.0 Vegetation

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SMPs Project - SMP 40 - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

SMPs Project - SMP 40

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	758.81	1000sqft	33.31	758,808.00	0
Parking Lot	799.00	Space	7.19	319,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - Consistent with the DEIR's model.

Construction Phase - See SWAPE's comment on "Unsubstantiated Changes to Individual Construction Phase Lengths."

Trips and VMT - Consistent with the DEIR's model.

Grading - Consistent with the DEIR's model.

Vehicle Trips - Consistent with the DEIR's model.

Construction Off-road Equipment Mitigation - Consistent with the DEIR's model.

Operational Off-Road Equipment - Consistent with the DEIR's model.

Stationary Sources - Emergency Generators and Fire Pumps - Consistent with the DEIR's model.

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	55.00	20.00
tblConstructionPhase	NumDays	740.00	272.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	75.00	28.00
tblConstructionPhase	NumDays	55.00	20.00
tblGrading	AcresOfGrading	84.00	225.00
tblLandUse	LandUseSquareFeet	758,810.00	758,808.00
tblLandUse	LotAcreage	17.42	33.31
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	22.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	8.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.01
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	3.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblVehicleTrips	CC_TL	7.30	9.79
tblVehicleTrips	CC_TL	7.30	9.79
tblVehicleTrips	CW_TL	9.50	12.75
tblVehicleTrips	ST_TR	1.74	1.40
tblVehicleTrips	SU_TR	1.74	1.40
tblVehicleTrips	WD_TR	1.74	1.40

2.0 Emissions Summary

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SMPs Project - SMP 40 - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.3758	34.5467	29.4975	0.0951	14.7083	1.4253	16.1336	4.2740	1.3113	5.5853	0.0000	9,705.9376	9,705.9376	1.9479	0.6473	9,918.0924
2024	402.7477	21.6674	28.6325	0.0935	4.9201	0.6772	5.5973	1.3322	0.6374	1.9696	0.0000	9,564.4753	9,564.4753	0.7580	0.6331	9,772.0843
Maximum	**402.7477**	**34.5467**	**29.4975**	**0.0951**	**14.7083**	**1.4253**	**16.1336**	**4.2740**	**1.3113**	**5.5853**	**0.0000**	**9,705.9376**	**9,705.9376**	**1.9479**	**0.6473**	**9,918.0924**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.7457	10.5303	33.4772	0.0951	14.7083	0.1052	14.8106	4.2740	0.1023	4.3763	0.0000	9,705.9376	9,705.9376	1.9479	0.6473	9,918.0924
2024	402.5966	10.4584	29.9259	0.0935	4.9201	0.1047	5.0248	1.3322	0.1013	1.4335	0.0000	9,564.4753	9,564.4753	0.7580	0.6331	9,772.0843
Maximum	**402.5966**	**10.5303**	**33.4772**	**0.0951**	**14.7083**	**0.1052**	**14.8106**	**4.2740**	**0.1023**	**4.3763**	**0.0000**	**9,705.9376**	**9,705.9376**	**1.9479**	**0.6473**	**9,918.0924**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.44**	**62.66**	**-9.07**	**0.00**	**0.00**	**90.02**	**8.72**	**0.00**	**89.55**	**23.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.5709	1.4400e-003	0.1586	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.3409	0.3409	8.9000e-004		0.3631
Energy	0.0771	0.7011	0.5890	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.3536	841.3536	0.0161	0.0154	846.3533
Mobile	3.1596	3.3503	30.7575	0.0724	7.9836	0.0493	8.0329	2.1264	0.0460	2.1724		7,545.7576	7,545.7576	0.3834	0.2986	7,644.3286
Offroad	0.4409	21.0684	210.3056	0.0336		0.4089	0.4089		0.4089	0.4089	0.0000	4,252.6357	4,252.6357	1.3754		4,287.0204
Stationary	6.6000e-003	0.0184	0.0168	3.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		3.3749	3.3749	4.7000e-004		3.3867
Total	**22.2552**	**25.1397**	**241.8275**	**0.1102**	**7.9836**	**0.5130**	**8.4966**	**2.1264**	**0.5097**	**2.6361**	**0.0000**	**12,643.4626**	**12,643.4626**	**1.7763**	**0.3140**	**12,781.4521**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.5709	1.4400e-003	0.1586	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.3409	0.3409	8.9000e-004		0.3631
Energy	0.0771	0.7011	0.5890	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.3536	841.3536	0.0161	0.0154	846.3533
Mobile	3.1596	3.3503	30.7575	0.0724	7.9836	0.0493	8.0329	2.1264	0.0460	2.1724		7,545.7576	7,545.7576	0.3834	0.2986	7,644.3286
Offroad	0.4409	21.0684	210.3056	0.0336		0.4089	0.4089		0.4089	0.4089	0.0000	4,252.6357	4,252.6357	1.3754		4,287.0204
Stationary	6.6000e-003	0.0184	0.0168	3.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		3.3749	3.3749	4.7000e-004		3.3867
Total	**22.2552**	**25.1397**	**241.8275**	**0.1102**	**7.9836**	**0.5130**	**8.4966**	**2.1264**	**0.5097**	**2.6361**	**0.0000**	**12,643.4626**	**12,643.4626**	**1.7763**	**0.3140**	**12,781.4521**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	9/1/2023	10/10/2023	5	28	
2	Building Construction	Building Construction	10/11/2023	10/24/2024	5	272	
3	Paving	Paving	10/25/2024	11/21/2024	5	20	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Architectural Coating	Architectural Coating	11/22/2024	12/19/2024	5	20

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 225

Acres of Paving: 7.19

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,138,212; Non-Residential Outdoor: 379,404; Striped Parking Area: 19,176 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
G g	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	9	453.00	177.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	91.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.5440	0.0000	14.5440	4.2304	0.0000	4.2304			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**14.5440**	**1.4245**	**15.9685**	**4.2304**	**1.3105**	**5.5409**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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SMPs Project - SMP 40 - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0541	0.0311	0.4781	1.4200e-003	0.1643	8.1000e-004	0.1651	0.0436	7.5000e-004	0.0443		145.7690	145.7690	3.6800e-003	3.4600e-003	146.8915
Total	**0.0541**	**0.0311**	**0.4781**	**1.4200e-003**	**0.1643**	**8.1000e-004**	**0.1651**	**0.0436**	**7.5000e-004**	**0.0443**		**145.7690**	**145.7690**	**3.6800e-003**	**3.4600e-003**	**146.8915**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.5440	0.0000	14.5440	4.2304	0.0000	4.2304			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**14.5440**	**0.1015**	**14.6455**	**4.2304**	**0.1015**	**4.3319**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0541	0.0311	0.4781	1.4200e-003	0.1643	8.1000e-004	0.1651	0.0436	7.5000e-004	0.0443		145.7690	145.7690	3.6800e-003	3.4600e-003	146.8915
Total	**0.0541**	**0.0311**	**0.4781**	**1.4200e-003**	**0.1643**	**8.1000e-004**	**0.1651**	**0.0436**	**7.5000e-004**	**0.0443**		**145.7690**	**145.7690**	**3.6800e-003**	**3.4600e-003**	**146.8915**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1926	7.5917	2.4244	0.0359	1.1988	0.0460	1.2447	0.3451	0.0440	0.3891		3,849.0601	3,849.0601	0.0788	0.5690	4,020.5951
Worker	1.2253	0.7039	10.8291	0.0323	3.7213	0.0185	3.7397	0.9871	0.0170	1.0041		3,301.6676	3,301.6676	0.0833	0.0783	3,327.0913
Total	**1.4179**	**8.2956**	**13.2535**	**0.0681**	**4.9201**	**0.0644**	**4.9845**	**1.3322**	**0.0610**	**1.3931**		**7,150.7277**	**7,150.7277**	**0.1621**	**0.6473**	**7,347.6863**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1926	7.5917	2.4244	0.0359	1.1988	0.0460	1.2447	0.3451	0.0440	0.3891		3,849.0601	3,849.0601	0.0788	0.5690	4,020.5951
Worker	1.2253	0.7039	10.8291	0.0323	3.7213	0.0185	3.7397	0.9871	0.0170	1.0041		3,301.6676	3,301.6676	0.0833	0.0783	3,327.0913
Total	**1.4179**	**8.2956**	**13.2535**	**0.0681**	**4.9201**	**0.0644**	**4.9845**	**1.3322**	**0.0610**	**1.3931**		**7,150.7277**	**7,150.7277**	**0.1621**	**0.6473**	**7,347.6863**

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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3.3 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1872	7.5952	2.3727	0.0353	1.1988	0.0464	1.2452	0.3451	0.0443	0.3895		3,789.0284	3,789.0284	0.0783	0.5601	3,957.8873
Worker	1.1446	0.6285	10.0930	0.0312	3.7213	0.0176	3.7389	0.9871	0.0162	1.0032		3,219.7480	3,219.7480	0.0753	0.0730	3,243.3893
Total	**1.3318**	**8.2237**	**12.4656**	**0.0665**	**4.9201**	**0.0639**	**4.9840**	**1.3322**	**0.0605**	**1.3927**		**7,008.7764**	**7,008.7764**	**0.1536**	**0.6331**	**7,201.2766**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1872	7.5952	2.3727	0.0353	1.1988	0.0464	1.2452	0.3451	0.0443	0.3895		3,789.0284	3,789.0284	0.0783	0.5601	3,957.8873
Worker	1.1446	0.6285	10.0930	0.0312	3.7213	0.0176	3.7389	0.9871	0.0162	1.0032		3,219.7480	3,219.7480	0.0753	0.0730	3,243.3893
Total	**1.3318**	**8.2237**	**12.4656**	**0.0665**	**4.9201**	**0.0639**	**4.9840**	**1.3322**	**0.0605**	**1.3927**		**7,008.7764**	**7,008.7764**	**0.1536**	**0.6331**	**7,201.2766**

3.4 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.9419					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9301**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

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3.4 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0379	0.0208	0.3342	1.0300e-003	0.1232	5.8000e-004	0.1238	0.0327	5.4000e-004	0.0332		106.6142	106.6142	2.4900e-003	2.4200e-003	107.3970
Total	**0.0379**	**0.0208**	**0.3342**	**1.0300e-003**	**0.1232**	**5.8000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**106.6142**	**106.6142**	**2.4900e-003**	**2.4200e-003**	**107.3970**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.9419					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2224**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0379	0.0208	0.3342	1.0300e-003	0.1232	5.8000e-004	0.1238	0.0327	5.4000e-004	0.0332		106.6142	106.6142	2.4900e-003	2.4200e-003	107.3970
Total	**0.0379**	**0.0208**	**0.3342**	**1.0300e-003**	**0.1232**	**5.8000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**106.6142**	**106.6142**	**2.4900e-003**	**2.4200e-003**	**107.3970**

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	402.3370					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**402.5178**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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3.5 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2299	0.1263	2.0275	6.2700e-003	0.7475	3.5300e-003	0.7511	0.1983	3.2500e-003	0.2015		646.7926	646.7926	0.0151	0.0147	651.5418
Total	**0.2299**	**0.1263**	**2.0275**	**6.2700e-003**	**0.7475**	**3.5300e-003**	**0.7511**	**0.1983**	**3.2500e-003**	**0.2015**		**646.7926**	**646.7926**	**0.0151**	**0.0147**	**651.5418**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	402.3370					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**402.3667**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2299	0.1263	2.0275	6.2700e-003	0.7475	3.5300e-003	0.7511	0.1983	3.2500e-003	0.2015		646.7926	646.7926	0.0151	0.0147	651.5418
Total	**0.2299**	**0.1263**	**2.0275**	**6.2700e-003**	**0.7475**	**3.5300e-003**	**0.7511**	**0.1983**	**3.2500e-003**	**0.2015**		**646.7926**	**646.7926**	**0.0151**	**0.0147**	**651.5418**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1596	3.3503	30.7575	0.0724	7.9836	0.0493	8.0329	2.1264	0.0460	2.1724		7,545.7576	7,545.7576	0.3834	0.2986	7,644.3286
Unmitigated	3.1596	3.3503	30.7575	0.0724	7.9836	0.0493	8.0329	2.1264	0.0460	2.1724		7,545.7576	7,545.7576	0.3834	0.2986	7,644.3286

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,062.33	1,062.33	1062.33	3,792,923	3,792,923
Total	1,062.33	1,062.33	1,062.33	3,792,923	3,792,923

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	9.79	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	12.75	9.79	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820
Unrefrigerated Warehouse-No Rail	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0771	0.7011	0.5890	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.3536	841.3536	0.0161	0.0154	846.3533
NaturalGas Unmitigated	0.0771	0.7011	0.5890	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.3536	841.3536	0.0161	0.0154	846.3533

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	7151.51	0.0771	0.7011	0.5890	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.3536	841.3536	0.0161	0.0154	846.3533
Total		**0.0771**	**0.7011**	**0.5890**	**4.2100e-003**		**0.0533**	**0.0533**		**0.0533**	**0.0533**		**841.3536**	**841.3536**	**0.0161**	**0.0154**	**846.3533**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	7.15151	0.0771	0.7011	0.5890	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.3536	841.3536	0.0161	0.0154	846.3533
Total		**0.0771**	**0.7011**	**0.5890**	**4.2100e-003**		**0.0533**	**0.0533**		**0.0533**	**0.0533**		**841.3536**	**841.3536**	**0.0161**	**0.0154**	**846.3533**

6. Area Detail

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.5709	1.4400e-003	0.1586	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.3409	0.3409	8.9000e-004		0.3631
Unmitigated	18.5709	1.4400e-003	0.1586	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.3409	0.3409	8.9000e-004		0.3631

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	16.3517					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0146	1.4400e-003	0.1586	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.3409	0.3409	8.9000e-004		0.3631
Total	**18.5709**	**1.4400e-003**	**0.1586**	**1.0000e-005**		**5.6000e-004**	**5.6000e-004**		**5.6000e-004**	**5.6000e-004**		**0.3409**	**0.3409**	**8.9000e-004**		**0.3631**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	16.3517					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0146	1.4400e-003	0.1586	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.3409	0.3409	8.9000e-004		0.3631
Total	**18.5709**	**1.4400e-003**	**0.1586**	**1.0000e-005**		**5.6000e-004**	**5.6000e-004**		**5.6000e-004**	**5.6000e-004**		**0.3409**	**0.3409**	**8.9000e-004**		**0.3631**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	22	8.00	260	89	0.20	CNG
Forklifts	8	8.00	260	89	0.20	Electrical

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	0.4409	21.0684	210.3056	0.0336		0.4089	0.4089		0.4089	0.4089	0.0000	4,252.6357	4,252.6357	1.3754		4,287.0204
Total	**0.4409**	**21.0684**	**210.3056**	**0.0336**		**0.4089**	**0.4089**		**0.4089**	**0.4089**	**0.0000**	**4,252.6357**	**4,252.6357**	**1.3754**		**4,287.0204**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	0.01	3	201	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	6.6000e-003	0.0184	0.0168	3.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		3.3749	3.3749	4.7000e-004		3.3867
Total	**6.6000e-003**	**0.0184**	**0.0168**	**3.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.7000e-004**	**9.7000e-004**		**3.3749**	**3.3749**	**4.7000e-004**		**3.3867**

11.0 Vegetation

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SMPs Project - SMP 40 - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

SMPs Project - SMP 40

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	758.81	1000sqft	33.31	758,808.00	0
Parking Lot	799.00	Space	7.19	319,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - Consistent with the DEIR's model.

Construction Phase - See SWAPE's comment on "Unsubstantiated Changes to Individual Construction Phase Lengths."

Trips and VMT - Consistent with the DEIR's model.

Grading - Consistent with the DEIR's model.

Vehicle Trips - Consistent with the DEIR's model.

Construction Off-road Equipment Mitigation - Consistent with the DEIR's model.

Operational Off-Road Equipment - Consistent with the DEIR's model.

Stationary Sources - Emergency Generators and Fire Pumps - Consistent with the DEIR's model.

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	55.00	20.00
tblConstructionPhase	NumDays	740.00	272.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	75.00	28.00
tblConstructionPhase	NumDays	55.00	20.00
tblGrading	AcresOfGrading	84.00	225.00
tblLandUse	LandUseSquareFeet	758,810.00	758,808.00
tblLandUse	LotAcreage	17.42	33.31
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	22.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	8.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.01
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	3.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblVehicleTrips	CC_TL	7.30	9.79
tblVehicleTrips	CC_TL	7.30	9.79
tblVehicleTrips	CW_TL	9.50	12.75
tblVehicleTrips	ST_TR	1.74	1.40
tblVehicleTrips	SU_TR	1.74	1.40
tblVehicleTrips	WD_TR	1.74	1.40

2.0 Emissions Summary

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SMPs Project - SMP 40 - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.3772	34.5539	29.1228	0.0928	14.7083	1.4253	16.1336	4.2740	1.3113	5.5853	0.0000	9,477.4147	9,477.4147	1.9484	0.6606	9,693.7998
2024	402.7545	22.2559	28.3225	0.0913	4.9201	0.6774	5.5975	1.3322	0.6376	1.9698	0.0000	9,342.2814	9,342.2814	0.7680	0.6455	9,553.8346
Maximum	**402.7545**	**34.5539**	**29.1228**	**0.0928**	**14.7083**	**1.4253**	**16.1336**	**4.2740**	**1.3113**	**5.5853**	**0.0000**	**9,477.4147**	**9,477.4147**	**1.9484**	**0.6606**	**9,693.7998**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.7706	11.1365	33.4571	0.0928	14.7083	0.1054	14.8106	4.2740	0.1023	4.3763	0.0000	9,477.4147	9,477.4147	1.9484	0.6606	9,693.7998
2024	402.6035	11.0468	29.6159	0.0913	4.9201	0.1049	5.0250	1.3322	0.1015	1.4337	0.0000	9,342.2814	9,342.2814	0.7680	0.6455	9,553.8346
Maximum	**402.6035**	**11.1365**	**33.4571**	**0.0928**	**14.7083**	**0.1054**	**14.8106**	**4.2740**	**0.1023**	**4.3763**	**0.0000**	**9,477.4147**	**9,477.4147**	**1.9484**	**0.6606**	**9,693.7998**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.43**	**60.95**	**-9.80**	**0.00**	**0.00**	**90.00**	**8.72**	**0.00**	**89.54**	**23.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.5709	1.4400e-003	0.1586	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.3409	0.3409	8.9000e-004		0.3631
Energy	0.0771	0.7011	0.5890	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.3536	841.3536	0.0161	0.0154	846.3533
Mobile	2.9222	3.8435	32.0612	0.0683	7.9836	0.0493	8.0329	2.1264	0.0460	2.1724		7,119.9575	7,119.9575	0.4228	0.3254	7,227.5012
Offroad	0.4409	21.0684	210.3056	0.0336		0.4089	0.4089		0.4089	0.4089	0.0000	4,252.6357	4,252.6357	1.3754		4,287.0204
Stationary	6.6000e-003	0.0184	0.0168	3.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		3.3749	3.3749	4.7000e-004		3.3867
Total	**22.0178**	**25.6329**	**243.1312**	**0.1062**	**7.9836**	**0.5130**	**8.4966**	**2.1264**	**0.5097**	**2.6361**	**0.0000**	**12,217.6625**	**12,217.6625**	**1.8157**	**0.3408**	**12,364.6247**

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SMPs Project - SMP 40 - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.5709	1.4400e-003	0.1586	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.3409	0.3409	8.9000e-004		0.3631
Energy	0.0771	0.7011	0.5890	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.3536	841.3536	0.0161	0.0154	846.3533
Mobile	2.9222	3.8435	32.0612	0.0683	7.9836	0.0493	8.0329	2.1264	0.0460	2.1724		7,119.9575	7,119.9575	0.4228	0.3254	7,227.5012
Offroad	0.4409	21.0684	210.3056	0.0336		0.4089	0.4089		0.4089	0.4089	0.0000	4,252.6357	4,252.6357	1.3754		4,287.0204
Stationary	6.6000e-003	0.0184	0.0168	3.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		3.3749	3.3749	4.7000e-004		3.3867
Total	**22.0178**	**25.6329**	**243.1312**	**0.1062**	**7.9836**	**0.5130**	**8.4966**	**2.1264**	**0.5097**	**2.6361**	**0.0000**	**12,217.6625**	**12,217.6625**	**1.8157**	**0.3408**	**12,364.6247**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	9/1/2023	10/10/2023	5	28	
2	Building Construction	Building Construction	10/11/2023	10/24/2024	5	272	
3	Paving	Paving	10/25/2024	11/21/2024	5	20	

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4	Architectural Coating	Architectural Coating	11/22/2024	12/19/2024	5	20

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 225

Acres of Paving: 7.19

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,138,212; Non-Residential Outdoor: 379,404; Striped Parking Area: 19,176 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
G g	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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Building Construction	9	453.00	177.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	91.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.5440	0.0000	14.5440	4.2304	0.0000	4.2304			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**14.5440**	**1.4245**	**15.9685**	**4.2304**	**1.3105**	**5.5409**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0555	0.0383	0.4579	1.3200e-003	0.1643	8.1000e-004	0.1651	0.0436	7.5000e-004	0.0443		135.4366	135.4366	4.1800e-003	3.9800e-003	136.7273
Total	**0.0555**	**0.0383**	**0.4579**	**1.3200e-003**	**0.1643**	**8.1000e-004**	**0.1651**	**0.0436**	**7.5000e-004**	**0.0443**		**135.4366**	**135.4366**	**4.1800e-003**	**3.9800e-003**	**136.7273**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.5440	0.0000	14.5440	4.2304	0.0000	4.2304			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**14.5440**	**0.1015**	**14.6455**	**4.2304**	**0.1015**	**4.3319**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0555	0.0383	0.4579	1.3200e-003	0.1643	8.1000e-004	0.1651	0.0436	7.5000e-004	0.0443		135.4366	135.4366	4.1800e-003	3.9800e-003	136.7273
Total	**0.0555**	**0.0383**	**0.4579**	**1.3200e-003**	**0.1643**	**8.1000e-004**	**0.1651**	**0.0436**	**7.5000e-004**	**0.0443**		**135.4366**	**135.4366**	**4.1800e-003**	**3.9800e-003**	**136.7273**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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SMPs Project - SMP 40 - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1861	8.0333	2.5072	0.0359	1.1988	0.0462	1.2449	0.3451	0.0441	0.3893		3,854.5657	3,854.5657	0.0783	0.5705	4,026.5199
Worker	1.2567	0.8685	10.3716	0.0300	3.7213	0.0185	3.7397	0.9871	0.0170	1.0041		3,067.6391	3,067.6391	0.0946	0.0902	3,096.8738
Total	**1.4428**	**8.9018**	**12.8788**	**0.0659**	**4.9201**	**0.0646**	**4.9847**	**1.3322**	**0.0611**	**1.3933**		**6,922.2048**	**6,922.2048**	**0.1729**	**0.6606**	**7,123.3937**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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3.3 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1861	8.0333	2.5072	0.0359	1.1988	0.0462	1.2449	0.3451	0.0441	0.3893		3,854.5657	3,854.5657	0.0783	0.5705	4,026.5199
Worker	1.2567	0.8685	10.3716	0.0300	3.7213	0.0185	3.7397	0.9871	0.0170	1.0041		3,067.6391	3,067.6391	0.0946	0.0902	3,096.8738
Total	**1.4428**	**8.9018**	**12.8788**	**0.0659**	**4.9201**	**0.0646**	**4.9847**	**1.3322**	**0.0611**	**1.3933**		**6,922.2048**	**6,922.2048**	**0.1729**	**0.6606**	**7,123.3937**

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1804	8.0369	2.4549	0.0354	1.1988	0.0465	1.2453	0.3451	0.0445	0.3896		3,794.5751	3,794.5751	0.0778	0.5615	3,963.8382
Worker	1.1786	0.7752	9.7007	0.0290	3.7213	0.0176	3.7389	0.9871	0.0162	1.0032		2,992.0074	2,992.0074	0.0859	0.0840	3,019.1887
Total	**1.3590**	**8.8121**	**12.1556**	**0.0644**	**4.9201**	**0.0641**	**4.9842**	**1.3322**	**0.0607**	**1.3929**		**6,786.5825**	**6,786.5825**	**0.1637**	**0.6455**	**6,983.0269**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1804	8.0369	2.4549	0.0354	1.1988	0.0465	1.2453	0.3451	0.0445	0.3896		3,794.5751	3,794.5751	0.0778	0.5615	3,963.8382
Worker	1.1786	0.7752	9.7007	0.0290	3.7213	0.0176	3.7389	0.9871	0.0162	1.0032		2,992.0074	2,992.0074	0.0859	0.0840	3,019.1887
Total	**1.3590**	**8.8121**	**12.1556**	**0.0644**	**4.9201**	**0.0641**	**4.9842**	**1.3322**	**0.0607**	**1.3929**		**6,786.5825**	**6,786.5825**	**0.1637**	**0.6455**	**6,983.0269**

3.4 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.9419					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9301**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0390	0.0257	0.3212	9.6000e-004	0.1232	5.8000e-004	0.1238	0.0327	5.4000e-004	0.0332		99.0731	99.0731	2.8400e-003	2.7800e-003	99.9731
Total	**0.0390**	**0.0257**	**0.3212**	**9.6000e-004**	**0.1232**	**5.8000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**99.0731**	**99.0731**	**2.8400e-003**	**2.7800e-003**	**99.9731**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.9419					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2224**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0390	0.0257	0.3212	9.6000e-004	0.1232	5.8000e-004	0.1238	0.0327	5.4000e-004	0.0332		99.0731	99.0731	2.8400e-003	2.7800e-003	99.9731
Total	**0.0390**	**0.0257**	**0.3212**	**9.6000e-004**	**0.1232**	**5.8000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**99.0731**	**99.0731**	**2.8400e-003**	**2.7800e-003**	**99.9731**

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	402.3370					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**402.5178**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2368	0.1557	1.9487	5.8300e-003	0.7475	3.5300e-003	0.7511	0.1983	3.2500e-003	0.2015		601.0434	601.0434	0.0173	0.0169	606.5037
Total	**0.2368**	**0.1557**	**1.9487**	**5.8300e-003**	**0.7475**	**3.5300e-003**	**0.7511**	**0.1983**	**3.2500e-003**	**0.2015**		**601.0434**	**601.0434**	**0.0173**	**0.0169**	**606.5037**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	402.3370					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**402.3667**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2368	0.1557	1.9487	5.8300e-003	0.7475	3.5300e-003	0.7511	0.1983	3.2500e-003	0.2015		601.0434	601.0434	0.0173	0.0169	606.5037
Total	**0.2368**	**0.1557**	**1.9487**	**5.8300e-003**	**0.7475**	**3.5300e-003**	**0.7511**	**0.1983**	**3.2500e-003**	**0.2015**		**601.0434**	**601.0434**	**0.0173**	**0.0169**	**606.5037**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.9222	3.8435	32.0612	0.0683	7.9836	0.0493	8.0329	2.1264	0.0460	2.1724		7,119.9575	7,119.9575	0.4228	0.3254	7,227.5012
Unmitigated	2.9222	3.8435	32.0612	0.0683	7.9836	0.0493	8.0329	2.1264	0.0460	2.1724		7,119.9575	7,119.9575	0.4228	0.3254	7,227.5012

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,062.33	1,062.33	1062.33	3,792,923	3,792,923
Total	1,062.33	1,062.33	1,062.33	3,792,923	3,792,923

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	9.79	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	12.75	9.79	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820
Unrefrigerated Warehouse-No Rail	0.553839	0.058700	0.188468	0.120786	0.022796	0.005663	0.010629	0.007566	0.000983	0.000556	0.026354	0.000841	0.002820

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0771	0.7011	0.5890	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.3536	841.3536	0.0161	0.0154	846.3533
NaturalGas Unmitigated	0.0771	0.7011	0.5890	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.3536	841.3536	0.0161	0.0154	846.3533

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	7151.51	0.0771	0.7011	0.5890	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.3536	841.3536	0.0161	0.0154	846.3533
Total		**0.0771**	**0.7011**	**0.5890**	**4.2100e-003**		**0.0533**	**0.0533**		**0.0533**	**0.0533**		**841.3536**	**841.3536**	**0.0161**	**0.0154**	**846.3533**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	7.15151	0.0771	0.7011	0.5890	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.3536	841.3536	0.0161	0.0154	846.3533
Total		**0.0771**	**0.7011**	**0.5890**	**4.2100e-003**		**0.0533**	**0.0533**		**0.0533**	**0.0533**		**841.3536**	**841.3536**	**0.0161**	**0.0154**	**846.3533**

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.5709	1.4400e-003	0.1586	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.3409	0.3409	8.9000e-004		0.3631
Unmitigated	18.5709	1.4400e-003	0.1586	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.3409	0.3409	8.9000e-004		0.3631

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	16.3517					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0146	1.4400e-003	0.1586	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.3409	0.3409	8.9000e-004		0.3631
Total	**18.5709**	**1.4400e-003**	**0.1586**	**1.0000e-005**		**5.6000e-004**	**5.6000e-004**		**5.6000e-004**	**5.6000e-004**		**0.3409**	**0.3409**	**8.9000e-004**		**0.3631**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	16.3517					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0146	1.4400e-003	0.1586	1.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004		0.3409	0.3409	8.9000e-004		0.3631
Total	**18.5709**	**1.4400e-003**	**0.1586**	**1.0000e-005**		**5.6000e-004**	**5.6000e-004**		**5.6000e-004**	**5.6000e-004**		**0.3409**	**0.3409**	**8.9000e-004**		**0.3631**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	22	8.00	260	89	0.20	CNG
Forklifts	8	8.00	260	89	0.20	Electrical

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UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	0.4409	21.0684	210.3056	0.0336		0.4089	0.4089		0.4089	0.4089	0.0000	4,252.6357	4,252.6357	1.3754		4,287.0204
Total	**0.4409**	**21.0684**	**210.3056**	**0.0336**		**0.4089**	**0.4089**		**0.4089**	**0.4089**	**0.0000**	**4,252.6357**	**4,252.6357**	**1.3754**		**4,287.0204**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	0.01	3	201	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

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10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	6.6000e-003	0.0184	0.0168	3.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		3.3749	3.3749	4.7000e-004		3.3867
Total	**6.6000e-003**	**0.0184**	**0.0168**	**3.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.7000e-004**	**9.7000e-004**		**3.3749**	**3.3749**	**4.7000e-004**		**3.3867**

11.0 Vegetation

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

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

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

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Focus on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years of experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Rosenfeld P. E., Spaeth K., Hallman R., Bressler R., Smith, G., (2022) Cancer Risk and Diesel Exhaust Exposure Among Railroad Workers. *Water Air Soil Pollution.* **233,** 171.

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

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Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

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Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

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Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Superior Court of the State of California, County of San Bernardino
Billy Wildrick, Plaintiff vs. BNSF Railway Company
Case No. CIVDS1711810
Rosenfeld Deposition 10-17-2022

In the State Court of Bibb County, State of Georgia
Richard Hutcherson, Plaintiff vs Norfolk Southern Railway Company
Case No. 10-SCCV-092007
Rosenfeld Deposition 10-6-2022

In the Civil District Court of the Parish of Orleans, State of Louisiana
Millard Clark, Plaintiff vs. Dixie Carriers, Inc. et al.
Case No. 2020-03891
Rosenfeld Deposition 9-15-2022

In The Circuit Court of Livingston County, State of Missouri, Circuit Civil Division
Shirley Ralls, Plaintiff vs. Canadian Pacific Railway and Soo Line Railroad
Case No. 18-LV-CC0020
Rosenfeld Deposition 9-7-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jonny C. Daniels, Plaintiff vs. CSX Transportation Inc.
Case No. 20-CA-5502
Rosenfeld Deposition 9-1-2022

In The Circuit Court of St. Louis County, State of Missouri
Kieth Luke et. al. Plaintiff vs. Monsanto Company et. al.
Case No. 19SL-CC03191
Rosenfeld Deposition 8-25-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jeffery S. Lamotte, Plaintiff vs. CSX Transportation Inc.
Case No. NO. 20-CA-0049
Rosenfeld Deposition 8-22-2022

In State of Minnesota District Court, County of St. Louis Sixth Judicial District
Greg Bean, Plaintiff vs. Soo Line Railroad Company
Case No. 69-DU-CV-21-760
Rosenfeld Deposition 8-17-2022

In United States District Court Western District of Washington at Tacoma, Washington
John D. Fitzgerald Plaintiff vs. BNSF
Case No. 3:21-cv-05288-RJB
Rosenfeld Deposition 8-11-2022

In Circuit Court of the Sixth Judicial Circuit, Macon Illinois
Rocky Bennyhoff Plaintiff vs. Norfolk Southern
Case No. 20-L-56
Rosenfeld Deposition 8-3-2022

In Court of Common Pleas, Hamilton County Ohio
Joe Briggins Plaintiff vs. CSX
Case No. A2004464
Rosenfeld Deposition 6-17-2022

In the Superior Court of the State of California, County of Kern
George LaFazia vs. BNSF Railway Company.
Case No. BCV-19-103087
Rosenfeld Deposition 5-17-2022

In the Circuit Court of Cook County Illinois
Bobby Earles vs. Penn Central et. al.
Case No. 2020-L-000550
Rosenfeld Deposition 4-16-2022

In United States District Court Easter District of Florida
Albert Hartman Plaintiff vs. Illinois Central
Case No. 2:20-cv-1633
Rosenfeld Deposition 4-4-2022

In the Circuit Court of the 4th Judicial Circuit, in and For Duval County, Florida
Barbara Steele vs. CSX Transportation
Case No.16-219-Ca-008796
Rosenfeld Deposition 3-15-2022

In United States District Court Easter District of New York
Romano et al. vs. Northrup Grumman Corporation
Case No. 16-cv-5760
Rosenfeld Deposition 3-10-2022

In the Circuit Court of Cook County Illinois
Linda Benjamin vs. Illinois Central
Case No. No. 2019 L 007599
Rosenfeld Deposition 1-26-2022

In the Circuit Court of Cook County Illinois
Donald Smith vs. Illinois Central
Case No. No. 2019 L 003426
Rosenfeld Deposition 1-24-2022

In the Circuit Court of Cook County Illinois
Jan Holeman vs. BNSF
Case No. 2019 L 000675
Rosenfeld Deposition 1-18-2022

In the State Court of Bibb County State of Georgia
Dwayne B. Garrett vs. Norfolk Southern
Case No. 20-SCCV-091232
Rosenfeld Deposition 11-10-2021

In the Circuit Court of Cook County Illinois
Joseph Ruepke vs. BNSF
Case No. 2019 L 007730
Rosenfeld Deposition 11-5-2021

In the United States District Court For the District of Nebraska
Steven Gillett vs. BNSF
Case No. 4:20-cv-03120
Rosenfeld Deposition 10-28-2021

In the Montana Thirteenth District Court of Yellowstone County
James Eadus vs. Soo Line Railroad and BNSF
Case No. DV 19-1056
Rosenfeld Deposition 10-21-2021

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al.cvs. Cerro Flow Products, Inc.
Case No. 0i9-L-2295
Rosenfeld Deposition 5-14-2021
Trial October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No. 18-L-6845
Rosenfeld Deposition 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail
Case No. 17-cv-8517
Rosenfeld Deposition 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al. vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case No. CV20127-094749
Rosenfeld Deposition 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al vs. CNA Insurance Company et al.
Case No. 1:17-cv-000508
Rosenfeld Deposition 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, Plaintiff, vs. Marathon Petroleum, LP, Defendant.
Case No. 1716-CV10006
Rosenfeld Deposition 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, Plaintiffs, vs. United States Metals Refining Company et. al. Defendant.
Case No. 2:17-cv-01624-ES-SCM
Rosenfeld Deposition 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" Defendant.
Case No. 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No. BC615636
Rosenfeld Deposition 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No. BC646857
Rosenfeld Deposition 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiffs vs. The 3M Company et al., Defendants
Case No. 1:16-cv-02531-RBJ
Rosenfeld Deposition 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No. 1923
Rosenfeld Deposition 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintifs vs. Chevron Corporation, et al., Defendants
Cause No. C12-01481
Rosenfeld Deposition 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case No. 1:19-cv-00315-RHW
Rosenfeld Deposition 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No. LC102019 (c/w BC582154)
Rosenfeld Deposition 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., Plaintiffs, vs. Meritor Inc., et al., Defendants
Case No. 4:16-cv-52-DMB-JVM
Rosenfeld Deposition July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No. RG14711115
Rosenfeld Deposition September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No. LALA002187
Rosenfeld Deposition August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action No. 14-C-30000
Rosenfeld Deposition June 2015

In The Iowa District Court for Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No. 4980
Rosenfeld Deposition May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case No. CACE07030358 (26)
Rosenfeld Deposition December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, Plaintiff, vs. Aruba et al, Defendant.
Case No. cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., Plaintiffs, vs. Republic Services, Inc., et al., Defendants
Case No. 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., Plaintiffs, vs. International Paper Company, Defendant.
Civil Action No. 2:09-cv-232-WHA-TFM
Rosenfeld Deposition July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., Plaintiffs, vs. Drummond Company Inc., et al., Defendants
Civil Action No. CV 2008-2076
Rosenfeld Deposition September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., Plaintiffs, vs. Citgo Petroleum Corporation, et al., Defendants.
Case No. 2:07CV1052
Rosenfeld Deposition July 2009

Golden State Environmental Justice Alliance
Green Jobs & Clean Communities
P.O. Box 79222
Corona, CA 92877

To: City of Livermore City Council

From: Golden State Environmental Justice Alliance

Subject: SMP 39/40 Project EIR

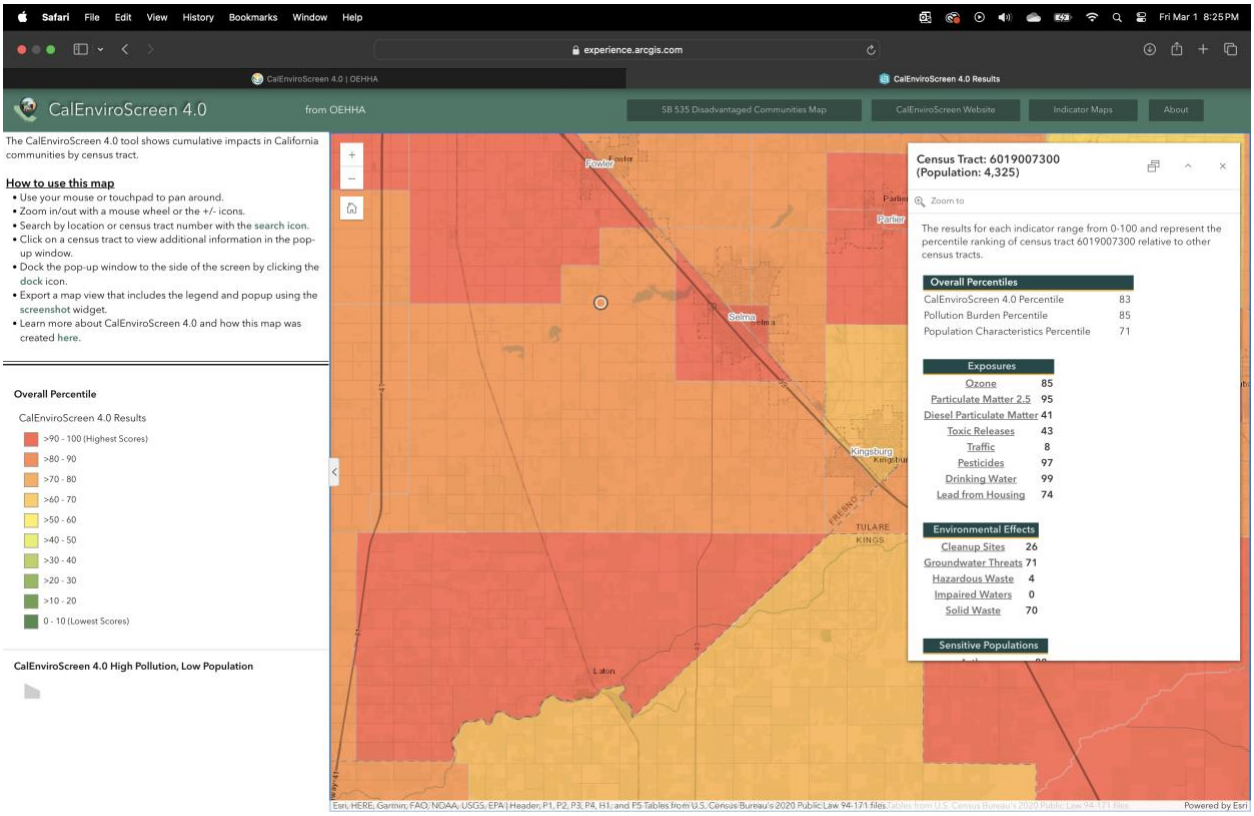
This letter is to serve as further comment in addition to all previously submitted comments and documents by Golden State Environmental Justice Alliance.

CalEnviroScreen Information

CalEnviroScreen is a mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects. CalEnviroScreen uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. The scores are mapped so that different communities can be compared. An area with a high score is one that experiences a much higher pollution burden than areas with low scores. CalEnviroScreen ranks communities based on data that are available from state and federal government sources. CalEnviroScreen is updated and maintained by The Office of Environmental Health Hazard Assessment, on behalf ofthe California Environmental Protection Agency.

CalEnviroScreen Data on : SMP 39/40 EIR Project Location/Area

The above listed project is in census tract **(6001451300)**. Overall, when compared to other census tracts, the project site census tract is in the 83rd percentile regarding pollution. As far as pollution burden is concerned, this census tract is in the 85th percentile. In terms of Ozone, this census tract is in the 85th percentile, Particulate Matter 2.5 98th percentile, Diesel Particulate Matter 41st percentile, Toxic Releases 43rd percentile and Traffic 8th percentile to name a few.



Conclusion

Consider the above referenced information when making this important decision. Realize that you and the citizens of this area face some of the WORST POLLUTION in the entire state of California.

It is the responsibility of the City's elected and appointed officials to make environmentally responsible development decisions. Based on the CalEnviroScreen data, this is more than sufficient evidence of the further air quality impacts that the citizenry of Livermore will continue to encounter with further development of another warehouse. We are not against development, as we believe it is necessary for further economic growth in our current society. Development needs to be conducted with the highest of expectations to ensure the local population does not suffer further air quality burdens.

We stand by our comments and believe the EIR is flawed and should be redrafted and recirculated for public review.

Respectfully Submitted,

Pete Sheehan

Pete Sheehan

GSEJA

Source -
https://experience.arcgis.com/experience/4af93cf9888a424481d2868391af2d82/page/home/?data_id=dataSource_2-1754d6afdb4-layer-9%3A7306

Glossary of Terms

Ozone - Amount of daily maximum 8-hour Ozone concentration

Particulate Matter 2.5 - Annual mean PM 2.5 concentrations

Diesel Particulate Matter - Diesel PM emissions from on-road and non-road sources

Toxic Releases - Toxicity-weighted concentrations of modeled chemical releases to air from
facility emissions and off-site incineration.

Traffic -Traffic density, in vehicle-kilometers per hour per road length, within 150 meters of the census tract boundary.

Helena Graves

From: Akerblom, Marty [redacted]
Sent: Monday, March 25, 2024 6:47 AM
To: City Clerk
Cc: Wallace, Marshall
Subject: City Council Meeting 3/25/2024 - Public Comment on Agenda Item 6.3 (SMP-39/SMP-40 Project)
Attachments: 2024.03.25 Letter to City Council re Public Trail at SMP-40 4883-1561-8224 v.2 (4885-0086-1361.1).pdf

[redacted] [redacted]

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

On behalf of El Charro Spur LLC, I am submitting the attached public comment on Agenda Item 6.3 (SMP-39/SMP-40 Project) for the City Council's March 25, 2024 meeting. Please provide this comment letter to the City Council for their consideration.

Margaret R. Akerblom
Partner
Allen Matkins Leck Gamble Mallory & Natsis LLP
865 South Figueroa Street, Suite 2800, Los Angeles, CA 90017-2543
Direct (213) 955-5623 | Main (213) 622-5555 | Mobile (626) 372-5588
makerblom@allenmatkins.com | Bio
Allen Matkins

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Allen Matkins

Allen Matkins Leck Gamble Mallory & Natsis LLP
Attorneys at Law
865 South Figueroa Street, Suite 2800 | Los Angeles, CA 90017-2543
Telephone: 213.622.5555 | Facsimile: 213.620.8816
www.allenmatkins.com

Margaret R. Akerblom
E-mail: makerblom@allenmatkins.com
Direct Dial: 213.955.5623 File Number: 372256.00005/4883-1561-8224.2

Via Electronic Mail

March 25, 2024

City Council
City of Livermore
1016 S. Livermore Ave.
Livermore, CA 94550

Re: Public Comment on SMP-39 and SMP-40 Project
City Council Meeting March 25, 2024

City Council of the City of Livermore:

We represent El Charro Spur LLC, which owns the approximately 69-acre parcel ("**ECS Property**") directly south of and abutting the SMP-40 property, which is the subject of the proposed SMP-39 and SMP-40 project before the City Council on March 25, 2024. On behalf of El Charro Spur LLC, we submitted a public comment to the Planning Commission for its March 5, 2024 meeting at which the Commission considered the SMP-39/SMP-40 project.

Specifically, we raised the issue that the SMP-39/SMP-40 project proposes to construct a public trail for biking, walking and other public access along the southern property line of the SMP-40 property, and the adjoining land owned by the Zone 7 Water Agency ("**Zone 7**") that will create a significant health and safety hazard given the proposed trail's immediate proximity to the Arroyo Mocho, the ECS Property, and active mining areas, which we explain in more detail in our March 5, 2024 letter to the Commission. While the plan calls for fencing along the southern side of the proposed public trail for the length of the SMP-40 property, which will prevent public access to the Arroyo from that location, it provides for no similar southerly fencing along the Zone 7 portion of the trail. Left unchanged, the design of the trail would allow direct, unimpeded access to the Arroyo Mocho via the Zone 7 property by anyone using the trail – including during flood events. This public access would invite trespassing across ECS property to the west of the Zone 7 property, and into the active mining operation of Vulcan Materials Company. This heightened public safety risk was not acknowledged or studied in the project's Environmental Impact Report (SCH# 2023010091) ("**EIR**") nor addressed in the project's conditions of approval.

The Commission did not address our comments at its March 5, 2024 meeting, so we are requesting the City Council to carefully consider the impacts that the proposed public trail may cause. Instead of repeating the points in our March 5, 2024 letter, we attach a copy of it and

incorporate its contents herein. We stress that El Charro Spur LLC cannot solve this problem itself or it would. El Charro Spur LLC does not have authority to secure the Zone 7 property nor would it be permitted to install fencing or obstructions in the Arroyo Mocho to stop the public from using Zone 7 property to enter the Arroyo Mocho and by extension the ECS Property and mining areas. Zone 7, however, could construct a fence on its property south of the proposed trail which could then connect to the proposed fence south of the trail on the SMP-40 property, thereby preventing public access to the Arroyo Mocho.

To be clear, ECS supports the SMP-40 project and the benefits it brings to the City and the community. The Council should approve the project at its March 25 meeting, but we ask the Council to include a condition of approval requiring the project applicant to work with Zone 7 to ensure that a fence is constructed on the Zone 7 property south of the trail connecting to the fence on the SMP-40 property.

Regards,

Margaret R. Akerblom

MRA
Enclosure

Allen Matkins

Allen Matkins Leck Gamble Mallory & Natsis LLP
Attorneys at Law
865 South Figueroa Street, Suite 2800 | Los Angeles, CA 90017-2543
Telephone: 213.622.5555 | Facsimile: 213.620.8816
www.allenmatkins.com

Margaret R. Akerblom
E-mail: makerblom@allenmatkins.com
Direct Dial: 213.955.5623 File Number: 394720.00001/4876-3208-5931.3

Via Electronic Mail

March 5, 2024

Planning Commission
City of Livermore
1016 S. Livermore Ave.
Livermore, CA 94550

Re: Public Comment on SMP-39 and SMP-40 Project
Planning Commission Meeting March 5, 2024

Planning Commission of the City of Livermore:

We represent El Charro Spur LLC, which owns the approximately 69-acre parcel ("**ECS Property**") directly south of and abutting the SMP-40 property, which is the subject of the proposed SMP-39 and SMP-40 project before the Planning Commission on March 5, 2024. On behalf of El Charro Spur LLC, we submit this public comment regarding the SMP-39/SMP-40 project. As explained in more detail below, the SMP-39/SMP-40 project proposes in part to construct a public trail along the Arroyo Mocho that will create a significant health and safety hazard that was not acknowledged or studied in the project's Environmental Impact Report (SCH# 2023010091) ("**EIR**") nor addressed in the project's conditions of approval.

Enclosed with this letter is a copy of Exhibit C to the proposed Development Agreement for SMP-40, which we have annotated for illustrative purposes. Exhibit C depicts that the SMP-39/SMP-40 project will include construction of a public trail running along the southern and western property lines of the SMP-40 property. This proposed public trail on the SMP-40 property proposes to continue at the southeast corner of the SMP-40 property onto the Alameda County Flood Control and Water Conservation District (Zone 7) property abutting the SMP-40 property's eastern property line, proceeding northeasterly, along the course of Zone 7's present maintenance road, which is not currently accessible to the public. Evidently, the proposal entails opening the Zone 7 maintenance road for the public's use as a trail. The proposed public trail would follow the course of the Arroyo Mocho, which passes through the Zone 7 property and along the northern edge of the ECS Property.

Exhibit C indicates that a chain link fence will be constructed along the northern and southern edges of the trail segment on the SMP-40 property. When the trail reaches the Zone 7 property, the northerly fence will connect to an existing Zone 7 fence that lies north of the

maintenance road. However, Exhibit C shows that the southerly fence will simply end at the Zone 7 property. This means that, if the path is constructed as shown in Exhibit C, members of the public using the trail would be able to simply leave the Zone 7 portion of the proposed path and enter the Arroyo Mocho which is immediately adjacent south of the path, without restriction. This in turn would permit members of the public to head west through the Arroyo Mocho onto El Charro Spur's private property without restriction, and further west, access the active mining operations of Vulcan Materials on the properties north and west of the ECS Property. The public cannot currently access these areas because the Zone 7 property, and maintenance road, are fenced off. The annotations on Exhibit C that we have added are intended to show the locations of the ECS Property, Zone 7 property, and mining properties.

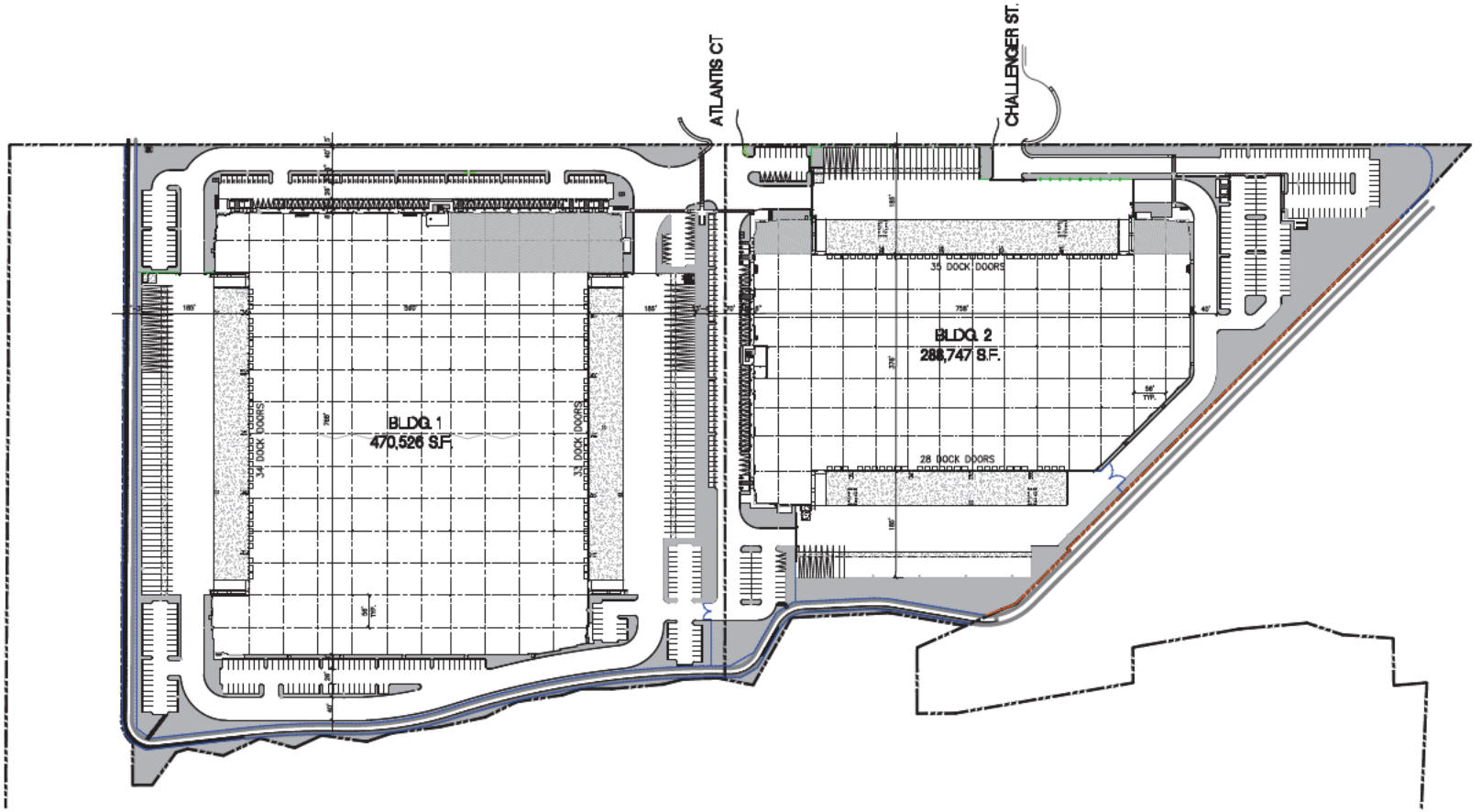
Providing the public unfettered direct access to the Arroyo Mocho, private property and an active mining operation, both in the dry months and in the rainy season when it regularly carries high water volumes, are health and safety hazards that must be considered as part of the SMP-39/SMP-40 project. However, the EIR does not address the fact that the proposed trail may be creating this dangerous public safety hazard. The EIR discusses the potential routes for the trail (see, e.g., EIR p. 3-22), but it does not analyze the risk posed by providing public access to the Arroyo Mocho and mining properties to the west nor what safety features the trail would have, such as fencing, to protect members of the public using it. The SMP-40 Development Agreement and the SMP-39/SMP-40 project conditions of approval also do not address how this safety issue will be mitigated. At minimum, the conditions of approval should require the project applicant to work with Zone 7 to ensure that a fence is constructed on the Zone 7 property south of the trail so that the fence south of the path on the SMP-40 property can connect to it. The ECS Property owner and the owner of the mining properties cannot themselves block access to their properties from the proposed public path because they cannot construct obstructions within the Arroyo Mocho. That is why public access must be contained continuously along the path on the Zone 7 property.

We ask that the Planning Commission consider the safety issues raised by this letter when evaluating the SMP-39/SMP-40 project and recommend appropriate conditions and mitigation measures to address them.

Regards,

Margaret R. Akerblom

MRA
Enclosure



MASTER SITE PLAN scale: 1" = 80'-0" (A)

SCALE: 1" = 80'-0"
0 80' 160' 240'
TRUE NORTH

NEW METAL FENCE AND GATE

EXISTING CHAIN LINK FENCE

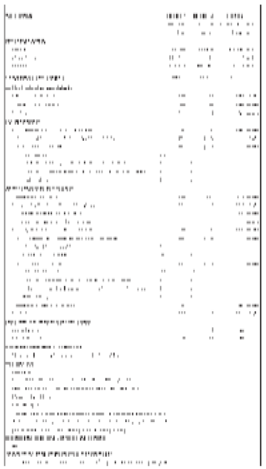
NEW CHAIN LINK FENCE AND GATE

SITE PLAN GENERAL NOTES

- CONCRETE PAVING, SEE "C" DRAWGS. FOR THICKNESS
- COMPACT PARKING STALL 8' X 16' (14' WITH 2' OVERHANG)
- STANDARD PARKING STALL 9' X 18' (16' WITH 2' OVER-HANG)
- ACCESSIBLE PARKING STALL (9' X 18') ACCESSIBLE AISLE SEE DETAIL 11/A0.1
- STANDARD PARKING STALL W/ EVCS INSTALLED
- STANDARD PARKING STALL W/ CONDUITS ONLY
- ACCESSIBLE PARKING (VAN) STALL (9' X 18') + 8' W/ ACCESSIBLE AISLE
- TRAILER PARKING (10' X 53')
- TRAILER PARKING W/ CONDUITS ONLY
- PATH OF TRAVEL. MINIMUM WIDTH TO BE 4'. SLOPE NOT TO EXCEED 5% IN THE DIRECTION OF TRAVEL AND CROSS SLOPE NOT TO EXCEED 2%. SEE CIVIL FOR GRADING PLAN
- LANDSCAPED AREA
- NON-ACCESSIBLE PATH

VICINITY MAP

PROJECT DATA



HPA architecture
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949-852-2113
email: hpa@hparchs.com

Developer

LIVERMORE INDUSTRIAL PARTNERS 40 LLC

Project:

OAKS BUSINESS PARK BUILDING 1

LIVERMORE, CA

Consultants:

CIVIL	Kier&Wright
STRUCTURAL	4STEL
MECHANICAL	ACIES
PLUMBING	ACIES
ELECTRICAL	ACIES
LANDSCAPE	Green Design
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: MASTER SITE PLAN

Project Number: 19177
Drawn by: DZ
Date: 11/21/2023
Revision:

Sheet: A1.0

THE CITY OF PLEASANTON

March 22, 2024

Marianna Marysheva
City Manager
City of Livermore
1052 S. Livermore Ave
Livermore, CA 94550

Subject: SMP 39 and SMP 40/ Sphere of Influence Amendment and Annexation

Dear Ms. Marysheva:

As you are aware, the City of Livermore is currently processing applications that would include annexation of properties referred to as SMP-39 and SMP-40 into Livermore. SMP-39 is within the City of Pleasanton's SOI, and an amendment to the SOI is also proposed to include this property within Livermore's Sphere. Livermore requested an indication of support for these applications which are to be brought to Alameda County LAFCO for their consideration and approval in the coming months. We have appreciated Livermore's partnership in providing opportunities for Pleasanton's review of the development proposal and CEQA document for the project, and your agreement to not include SMP-38, which lies closest to Pleasanton and is also within our SOI, in the amendment and annexation request.

I am pleased to inform you that at its March 19, 2024 meeting, the Pleasanton City Council reviewed the proposed annexation and SOI amendment, and on a 3-2 vote, indicated its support for the proposal, based on the parcels' location within the Livermore Urban Growth Boundary, contiguous to the City of Livermore and near to available utilities.

In transmitting the City Council's vote of support, I did want to note that a member of the public spoke at the meeting to raise concerns about preservation of an urban separator between Livermore and Pleasanton; members of the City Council noted this same concern and expressed further concerns about potential for Livermore Airport uses to expand into the newly-annexed area. While we understand no such proposal is currently under consideration by Livermore, as you are aware, airport uses and expansion are of significant concern to the City Council and the Pleasanton community, and as such, the City of Pleasanton would strongly oppose any proposal in that regard.

P.O. Box 520, Pleasanton, CA 94566-0802 **123 Main Street**

City Manager
(925) 931-5002
Fax: 931-5482

City Attorney
(925) 931-5015
Fax: 931-5482

Economic Development
(925) 931-5038
Fax: 931-5485

City Clerk
(925) 931-5027
Fax: 931-5492

If you have any questions regarding the City Council's action or specific discussion on this item, please contact me at gbeaudin@cityofpleasantonca.gov or Ellen Clark Community Development Director at eclark@cityofpleasantonca.gov. We look forward to ongoing coordination and cooperation with Livermore around land use planning for East Pleasanton and the Livermore Airport.

Sincerely,

Gerry Beaudin
City Manager

c: Pleasanton City Council
Paul Spence, Assistant City Manager, City of Livermore
Ellen Clark, Community Development Director, City of Pleasanton

Council Member	Date of Meeting or Event	Committee or Organization	Meeting or Event Type (ex. board meeting or ribbon cutting)	Summary of Meeting or Event
Mayor Marchand	3/13/2024	Chamber of Commerce	Networking	Introductions with new businesses and networking.
Mayor Marchand	3/13/2024	Alameda County Mayors Conference	Business meeting	Debated nominations and voted to fill a position on the BAAQMD. Hear the Albany City report and a report from a Red Cross representative.
Mayor Marchand	3/14/2024	Tri-Valley Nonprofit Alliance	Panel discussion	Moderated Panel discussion with the Tri-Valley mayors
Mayor Marchand	3/14/2024	Alameda Local Agency Formation Commission	Meeting	Heard the Municipal Service Review on Fire agencies.
Mayor Marchand	3/14/2024	Livermore Amador Valley Water Management Agency	Meeting/Closed Session interviews	Interviewed and selected a candidate for the General Manager position.
Mayor Marchand	3/16/2024	Livermore Valley Arts	Reception	Attended the art reception at the Bankhead featuring prints of the Chagall Windows.
Mayor Marchand	3/17/2024	Young Men's Service League	Presentation	Gave a presentation on local government and Civic Responsibility.
Mayor Marchand	3/19/2024	Innovation Tri-Valley	Summit	Tri-Valley Energy Summit including presentations on the National Ignition Facility and hydrogen power.
Mayor Marchand	3/19/2024	City of Livermore	Reception	Fairwell reception for Rene Dalusong.
Mayor Marchand	3/20/2024	Chamber of Commerce	Chamber mixer	Networking among local businesses.
Mayor Marchand	3/21/2024	Chamber of Commerce	Ribbon-cutting	Welcomed a new business, Innovo Dental and Implant Studio
Mayor Marchand	3/21/2024	Assembly Member Bauer-Kahan's office	Information Forum	Policy Discussion on Mental Health and Prop. 1.
Mayor Marchand	3/22/2024	ABCNorcal	Graduation	Attended the 26th Graduation Ceremony of graduates from their apprentice program, recognizing two Livermore graduates.
Mayor Marchand	3/23/2024	Livermore Rotary International Student program	Presentation	Provided a presentation on the history of Livermore and local government.
Mayor Marchand	3/23/2024	Livermore Art Association	Art Reception	Attended the Essential Figure Art Show reception.
Mayor Marchand	3/23/2024	Scout Troop 999	Eagle Scout Court of Honor	Presented certificates of Congratulations to two Eagle Scouts.

Council Member	Date of Meeting or Event	Committee or Organization	Meeting or Event Type (ex. board meeting or ribbon cutting)
Vice Mayor Carling	3/13/2024	i-GATE	Board meeting
Vice Mayor Carling	3/14/2024	StopWaste	Board meeting
Vice Mayor Carling	3/14/2024		Conversation with the Tri-Valley mayors
Vice Mayor Carling	3/14/2024	Livermore-Amador ValleyWater Management Authority (LAVWMA)	Special meeting
Vice Mayor Carling	3/15/2024	Alameda Landfill Open Space Committee (ALOSC)	Board meeting
Vice Mayor Carling	3/19/2024	Tr-Valley Energy Summit	
Vice Mayor Carling	3/21/2024	Spectrum Meals on Wheels	Ride along to deliver meals

Council Member	Date of Meeting or Event	Committee or Organization	Meeting or Event Type (ex. board meeting or ribbon cutting)	Summary of Meeting or Event
Council Member Barrientos	3/24/2024	City Council	Invitation to attend the Hong Kong Film Festival	We were shown two films. I did enjoy one of them. Met the Mayor of Napa and a representative from the Hong Kong delegation
Council Member Barrientos	3/20/2024	City Council	Ava Community Energy Board of Directors	We had two closed sessions which took up most of our time

Council Member	Date of Meeting or Event	Committee or Organization	Meeting or Event Type (ex. board meeting or ribbon cutting)
Council Member Branning	3/22/2024	CalCities	Housing and Economic Development Policy Committee
Council Member Branning	3/19/2024	Livermore Downtown Inc (LDI)	Board meeting
Council Member Branning	3/25/2024	Livermore-Amador Valley Transit Authority (LAVTA)	Projects and services meeting
Council Member Branning	3/17/2024	Young Men's Service League	Meeting with young men about the city's activities

LIVERMORE
CALIFORNIA

CITY COUNCIL STAFF REPORT **ITEM NO. 10.2**

DATE: March 25, 2024

TO: Honorable Mayor and City Council

FROM: Marianna Marysheva, City Manager

SUBJECT: Supplemental materials received at the meeting.

RECOMMENDED ACTION

SUMMARY

DISCUSSION

ATTACHMENTS

1. Items Received at the Meeting

Prepared by: Helena Graves
Deputy City Clerk

Approved by:

Marianna Marysheva
City Manager

Fiscal Review by:

Tina Olson
Administrative Services Director

March 25,2024

To City Council Members:

Why don't we have unleaded aviation fuel at Livermore Airport (LVK) ? What is causing the delays? This is an URGENT public health and safety issue. The negative impacts of lead in humans, especially children and the elderly, are well-documented. A 4 year old who lived near LVK tested positive for lead in his bloodstream. We need to act now.

At least 10 municipal airports in CA and 35 airports nationwide offer UL 94; Hayward,the only other municipal airport in Alameda County, has two FBOs and both offer UL 94. How did all of these airports obtain UL 94 before us? Why are we last??

The City Manger says the BAAQMD still requires a 30 day comment period but this can be waived for health issues that exist at LVK.
It is critical for the City Council to directly email Ms.Becky Yu at BAAQMD and ask to have the permit fast-tracked.
Start selling UL 94 in the existing 1,000 gallon fuel tank.
The City can separate the fuel contract with the current Fixed Based Operator (FBO) and require the FBO to sell unleaded av fuel.

Please provide updates concerning GAMI 100, a "drop in" av fuel that can be used in any tank or aircraft.

In March 2024, the FAA certified and authorized the sale of unleaded GAMI 100 UL for piston engine aircraft

The City says on Facebook and Next Door that staff is working to get unleaded fuel and is in **Contact** with GAMI ---
but the City does NOT provide the public with any concrete steps
Could you please verify if Livermore is in negotiations with GAMI distributors to receive G100UL?

The timeline to transition to unleaded aviation fuel must be accelerated. The City Council should complete the following steps:
1 Require the FBO to initiate a contract with G100 UL distributors in CA
2 The City will recoup $200,000 from Elevation LVK cafe ; (5.5 on tonight's consent calendar);consider using this money to buy a 8,500 hundred gallon tank for G100UL

The benefits of offering unleaded fuel will 1) reduce the lead poisoning of residents and 2) allow piston aircraft to continue to have a future at LVK.

Please agendize updates on getting unleaded fuel at the next City Council meeting.

Sincerely,
Donna Cabanne Donna Cabanne
40 year resident of Livermore, member of Sierra Club, Center for Biological Diversity, Tri-Valley Air Quality Climate Alliance, Lead Free Livermore, Unlead/LVK

Received at the Livermore City Council meeting of:
March 25, 2024

10 YEARS

TRI-VALLEY NONPROFIT ALLIANCE

presents

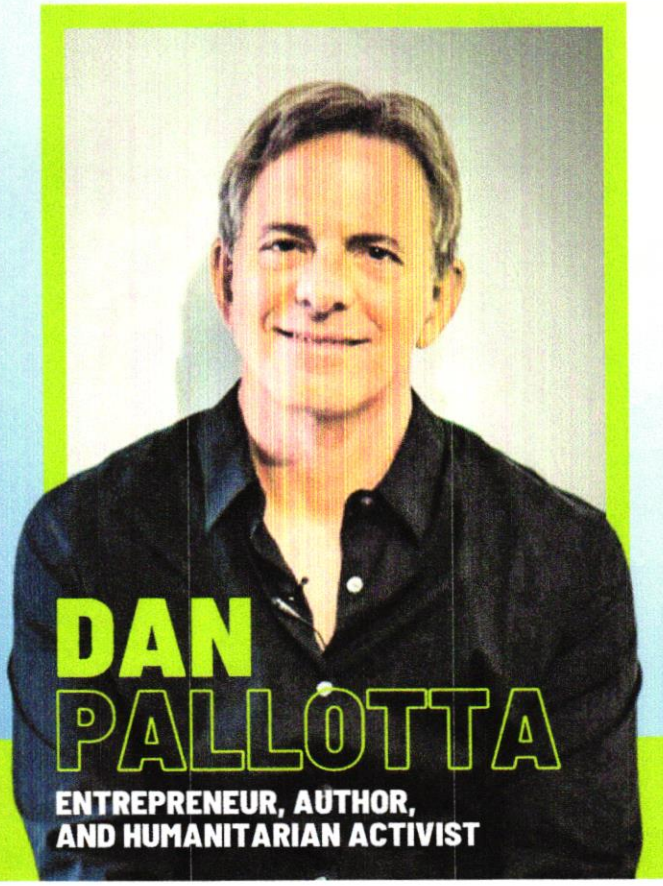
Received at the Livermore City Council meeting of:
March 25, 2024

Charity Reimagined:
Dan Pallotta In-Person at UnCharitable Screening

with a fireside chat after the movie!

WEDNESDAY MAY 15, 2024
5:30 - 8:30 PM

doors open at 5:00 PM



BANKHEAD THEATER
2400 FIRST ST.
LIVERMORE, CA 94550

- **Early Bird Pricing (March 18, 2024 – April 12, 2024)**
  - **$85 for TVNPA members, $105 for non-members**
  - **Use code: TVNPA_uncharitable**
- Regular Pricing (April 12, 2024 – May 15, 2024)
  - $100 for TVNPA members, $120 for members.
- Group Sales Offer
  - Groups of 10 or more can enjoy a discount of $10 off per ticket.
  - Use code: TVNPAgroup

Special Hotel Accommodation Offers for this Event
See details on our website: www.tvnpa.org

Ticket information
www.livermorearts.org

Helena Graves

From:	Hind Baki <hind@mitchtsailaw.com>
Sent:	Monday, March 25, 2024 3:44 PM
To:	Ashley Vera; City Clerk; Mitchell Tsai; Grace Holbrook; Mitchell M. Tsai Attorney at Law, P.C.
Subject:	Local 713 - SMP 39, 40 Project - Comment Letter for 3/25/2024 City Council meeting
Attachments:	20240325_Local713 _CityofLivermore_SMP3940Project_CCCommentLetter_Signed_Combined.pdf

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Good afternoon,

Please find attached our Firm's Comment Letter for the SMP 39, 40 Project, Agenda item 6.3 at tonight's City Council meeting. We would appreciate confirmation of receipt of this email.

Thank you very much,
--Hind

Hind Baki
Paralegal
Mitchell M. Tsai Law Firm - *Environmental & Land Use Litigation*
139 South Hudson Avenue, Suite 200
Pasadena, CA 91101
Office: (626) 314-3821
Fax: (626) 389-5414
Email: hind@mitchtsailaw.com
Website: https://www.mitchtsailaw.com

Please note that Hind Baki is out of office on Fridays; for any urgent matters, please contact info@mitchtsailaw.com

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P: (626) 314-3821
F: (626) 389-5414
E: info@mitchtsailaw.com

Mitchell M. Tsai
Law Firm

139 South Hudson Avenue
Suite 200
Pasadena, California 91101

VIA E-MAIL

March 25, 2024
City of Livermore City Council
Civic Center Meeting Hall
City Council Chambers
1016 S. Livermore Avenue
Livermore, CA 94550
Em: cityclerk@LivermoreCA.gov

RE: City of Livermore's SMP 39 and 40 Project (Agenda Item 6.3)

Dear Mayor Marchand, Vice Mayor Carling, and Honorable Councilmembers,

On behalf of "**Carpenters Local 713**", my Office is submitting these comments for the City of Livermore's ("**City**") March 25, 2024, City Council Meeting regarding Agenda Item 6.3: SMP 39 and 40 Project ("**Project**").

According to the Final Environmental Impact Report ("**FEIR**"), the Project seeks to develop two parcels, SMP 39 and SMP 40. For SMP 39, the proposed project would include development of a total of up to six light industrial buildings, consisting of up to approximately 755,500 square feet (sf) of new building space, and associated internal roadways and other improvements. For SMP 40, the proposed project would include development of two industrial buildings consisting of up to 759,275 sf of new building space with related internal roadways and other improvements. (FEIR, pg. 3-7).

Carpenters Local 713 is a labor union representing union carpenters in Alameda County that has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects.

Local 713 members live, work, and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

Carpenters Local 713 expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

Carpenters Local 713 incorporates by reference all comments related to the Project or its CEQA review, including the Environmental Impact Report. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, Carpenters Local 713 requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT

The City should require the Project to be built using local workers who have graduated from a Joint Labor-Management Apprenticeship Program and make a commitment to hiring a local workforce.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.[1]

[1] See March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling, included in previous comment letters submitted by Local 713.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[2]

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[3]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[4]

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT

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[2] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[3] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[4] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

reductions given that the skill requirements of available local jobs must match those held by local residents.[5] Some municipalities have even tied local hire and other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 ("**AB2011**"). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts.

II. THE PROJECT WOULD BE APPROVED IN VIOLATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

A. Background Concerning the California Environmental Quality Act

The California Environmental Quality Act is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. 14 California Code of Regulations ("**CEQA Guidelines**"), § 15002, subd.

[5] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

(a)(1).[6] At its core, its purpose is to "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

B. CEQA Requires Subsequent or Supplemental Environmental Review When Substantial Changes or New Information Comes to Light

Section 21092.1 of the California Public Resources Code requires that "[w]hen significant new information is added to an environmental impact report after notice has been given pursuant to Section 21092 … but prior to certification, the public agency shall give notice again pursuant to Section 21092, and consult again pursuant to Sections 21104 and 21153 before certifying the environmental impact report" in order to give the public a chance to review and comment upon the information. (CEQA Guidelines § 15088.5.)

Significant new information includes "changes in the project or environmental setting as well as additional data or other information" that "deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative)." (CEQA Guidelines § 15088.5(a).) Examples of significant new information requiring recirculation include "new significant environmental impacts from the project or from a new mitigation measure," "substantial increase in the severity of an environmental impact," "feasible project alternative or mitigation measure considerably different from others previously analyzed" as well as when "the draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded." (*Id.*)

An agency has an obligation to recirculate an environmental impact report for public notice and comment due to "significant new information" regardless of whether the agency opts to include it in a project's environmental impact report. (*Cadiz Land Co. v. Rail Cycle* (2000) 83 Cal.App.4th 74, 95 [finding that in light of a new expert report disclosing potentially significant impacts to groundwater supply "the EIR should have been revised and recirculated for purposes of informing the public and governmental

[6] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 et seq., are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. Cal. Pub. Res. Code, § 21083. The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217.

agencies of the volume of groundwater at risk and to allow the public and governmental agencies to respond to such information."].) If significant new information was brought to the attention of an agency prior to certification, an agency is required to revise and recirculate that information as part of the environmental impact report.

1. The Severity of the Predicted Noise Impact has Increased for On-Site Construction Operations.

The DEIR found that there would be a significant noise impact during the construction phase at the ***off-site*** trail location. The March 4, 2024, Updated Noise Study ("**Exhibit A**") identified significant ***on-site*** noise impacts during the construction phase at the SMP 40 location. This resulted in a substantial change to the findings of the noise impact as sensitive residential users would now be exposed to excessive noise and the noise level would exceed the limits set by the City's Noise Ordinance and the General Plan Noise Objectives N-1.1 and N-1.5.

2. A New Mitigation Measure was Implemented.

A new mitigation measure was added to the FEIR in response to inadequacies of the original noise study. In the previous iteration of the FEIR, the sensitive users near SMP 40 were not expected to face significant noise impacts during the construction phase. Mitigation measure 4.6-1(a) was introduced to mitigate the significant noise impact the on-site construction at SMP 40 would have on nearby sensitive users.

3. The DEIR Noise Analysis was Fundamentally Conclusory and Inadequate.

The DEIR was fundamentally inadequate and conclusory in relation to the noise impacts stemming from the Project. Indeed, the DEIR failed to analyze the noise impacts for SMP 39, stating that "[d]ue to the substantial distance between SMP 39 and the sensitive noise receptors, . . . construction noise levels for SMP 39 were not evaluated as part of the Environmental Noise Study prepared for SMP 39." (DEIR, pg. 4.6-21).

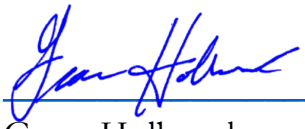
Further, the analysis for SMP 40's noise impacts was wholly inadequate, as the updated study now shows the construction phase of the Project will produce significant noise impacts on nearby residences and will exceed the City's Noise Ordinance and the General Plan Noise Objectives.

These significant changes to the noise impacts require revision and recirculation of the FEIR.

III. CONCLUSION

Based on the foregoing, the City should adopt the FEIR until the significant changes are incorporated into a revised and recirculated document. Adopting the FEIR as-is would result in a clear violation of CEQA. If the City has any questions, please feel free to contact my Office.

Sincerely,



Grace Holbrook
Attorneys for Carpenters Local 713

Attached:

March 4, 2024 SMP 40 Updated Noise Study ("Exhibit A").

Oaks Business Park SMP-40

Livermore, CA

UPDATE TO ENVIRONMENTAL NOISE STUDY

4 March 2024

Prepared for: Michael Johnson
Overton Moore Properties
19700 S Vermont Avenue Suite #101
Torrance, CA 90502
MJohnson@omprop.com

Timur Tecimer
Overton Moore Properties
19700 S Vermont Avenue Suite #101
Torrance, CA 90502
ttecimer@omprop.com

Prepared by: Salter
Diego Hernandez – Associate dhernandez@salter-inc.com
Ethan Salter – Vice President esalter@salter-inc.com

Salter Project 21-0471

INTRODUCTION

This report summarizes our study of environmental noise of the proposed project (Livermore Oaks Business Park SMP-40) on nearby land uses. The project site is west of Isabel Avenue (State Highway 84), north of Stanley Boulevard, and south of Discovery Drive in Livermore, California. The purpose of the study was to determine whether estimated activity noise and construction noise from the proposed facility will meet the relevant requirements of the City General Plan Noise Element and Noise Ordinance at adjacent land uses.

EXECUTIVE SUMMARY

- Noise from the project's loading docks, future intra-project vehicle traffic, and likely HVAC equipment will increase CNEL[1] or DNL[2] noise levels at noise-sensitive receiver locations at most by 3 dB. An increase of 3 dB or less DNL is not expected to be noticeable and is not considered significant.
- Noise from project-created traffic would not result in a significant increase in noise levels on Isabel Avenue at adjacent properties.
- Temporary construction noise will exceed the City's Noise Ordinance and will need mitigation measures not to exceed the criteria established by General Plan Noise Objectives N-1.1 and N-1.5.

REPORT ORGANIZATION

This report is organized into the following sections:

- Project Site
- Acoustical Criteria
- Existing Noise Environment
- Noise Impact Assessment
  - Construction Noise
  - Loading Dock and Intra-Project Traffic Noise (Parking Lot)
  - Tenant HVAC Equipment Noise

[1] Community Noise Equivalent Level (CNEL) – A descriptor for the 24-hour A-weighted average noise level. The CNEL concept accounts for the increased acoustical sensitivity of people to noise during the evening and nighttime hours. Sound levels during the hours from 7 pm to 10 pm are penalized 5 dB; sound levels during the hours from 10 pm to 7 am are penalized 10 dB. A 10-dB increase in sound level is perceived by people to be a doubling of loudness.

[2] Day-Night Average Sound Level (DNL) – A descriptor established by the U.S. Environmental Protection Agency to describe the average day-night level with a penalty applied to noise occurring during the nighttime hours (10 pm - 7 am) to account for the increased sensitivity of people during sleeping hours. Also noted as Ldn. The difference between CNEL and DNL is often less than 1 dB.

PROJECT SITE

The proposed project will have a total area of approximately 40 acres, west of Isabel Avenue (State Highway 84) and between Stanley Boulevard and Discovery Drive in the City of Livermore. Warehouse Building 1 will be about 470,350 square feet with 68 loading docks, while Building 2 will be 288,750 square feet with 62 loading docks. The site is adjacent to existing industrially zoned warehouse facilities with loading docks to the north. Noise-sensitive residential receivers are located across Isabel Avenue to the east about 1,785-feet away from Building 1, and 600-feet away the northeast corner of the SMP-40 site. Two berms have been incorporated on the project site: a 6-foot by 125-foot landscape berm on the Northeast corner of the project property line, and a 10-foot by 60-foot screening wall east of Building 2's southern loading docks.

ACOUSTICAL CRITERIA

The following are project criteria and/or guidelines per the City of Livermore and State of California.

City of Livermore 2003-2025 General Plan Noise Element

Policy P4, Objective N-1.1

The Noise Element of the Livermore General Plan (Chapter 9, Policy P4 of Objective N-1.1) contains land use compatibility guidelines for environmental noise in the community. Table 1, below, summarizes these guidelines for residential and industrial land uses[3] in terms of CNEL or DNL. The definitions of each land use category follow below the table.

Table 1: Summary of Table 9-7 – Land Use Compatibility Guidelines for Community Noise CNEL or DNL, dB

Land Use Category	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential Low-Density[4], Single-family, Duplex, Mobile Homes	≤60	55-70	70-75	>75
Industrial, Manufacturing, Utilities, Agricultural	≤75	70-80	>75	--

[3] Table 9-7 of the Noise Element, page 9-27.

[4] Per General Plan Noise Ordinance Objective N-1.4, Policy P4, the criterion for single-family residential back yards is 60 dB CNEL/DNL.

Normally Acceptable: *If the noise level is within the "normally acceptable" level, noise exposure would be acceptable for the intended land use. Development may occur without requiring an evaluation of the noise environment unless the use could generate noise impacts on adjacent uses.*

Conditionally Acceptable: *If the noise level is within the "conditionally acceptable" level, noise exposure would be conditionally acceptable; a specified land use may be permitted only after detailed analysis of the noise environment and the project characteristics to determine whether noise insulation or protection features are required. Such noise insulation features may include measures to protect noise-sensitive outdoor activity areas (e.g., at residences, schools, or parks) or may include building sound insulation treatments such as sound-rated windows to protect interior spaces in sensitive receptors.*

Normally Unacceptable: *If the noise level is within the "normally unacceptable" level, analysis and mitigation are required. Development should generally not be undertaken unless adequate noise mitigation options have been analyzed and appropriate mitigations incorporated into the project to reduce the exposure of people to unacceptable noise levels.*

Clearly Unacceptable: *New construction should not be undertaken unless all feasible noise mitigation options have been analyzed and appropriate mitigation incorporated into the project to adequately reduce exposure of people to unacceptable noise levels.*

Noise Element Objective N-1.5

Objective N-1.5 seeks to reduce the level of noise generated by "stationary mechanical and other noise-generating equipment". Policy P1 states that "the City shall require that industrial and commercial uses be designed and operated to avoid the generation of noise effects on surrounding land uses from exceeding the following noise levels for exterior environments, operating longer than half an hour per hour:

- 55 dBA[5] L50[6] (7:00am to 10:00pm)
- 45 dBA L50 (10:00pm to 7:00am)

Policy P2 allows short-term events to have levels louder than those cited above. For events that occur less than 15 minutes per hour, levels can be increased by 5 dBA; events no more than 5 minutes per hour are allowed an additional 10 dBA, and those taking place one minute or less per hour are allowed an additional 15 dBA.

[5] A-Weighted Sound Level – The A-weighted sound pressure level, expressed in decibels (dB). Sometimes the unit of sound level is written as dB(A). A weighting is a standard weighting that accounts for the sensitivity of human hearing to the range of audible frequencies. People perceive a 10 dB increase in sound level to be twice as loud.

[6] L50 – The noise level exceeded 50% of the time. For a discussion of environmental acoustics, please refer to Appendix A.

Policy P4 allows an exemption from Policy P1 for motor vehicles on public streets between the hours of 7:00am and 8:00pm. We understand that Policies P1, P2, and P4 could apply to the noise from backup alarms (aka "beepers" or "squawkers").

Objective N-1.5 specifically describes "stationary source noises", so when referring to L_{50} noise levels we analyzed the noise of trucks that are expected to sit in the loading dock area, estimated to be at least 1,025 feet from the nearest residence.

Policy P3 establishes instantaneous maximum noise levels allowed (Lmax[7]) of 70 dBA during the day and 60 dBA during the night.

California Department of Transportation (CalTrans) Construction Vibration Criteria

The California Department of Transportation[8] (DOT) provides vibration guidelines for two scenarios: human perception and construction damage. These tables are included below as guidelines for potential project vibration levels. "Transient" vibrations are classified as impulsive events that are short in duration (e.g., debris falling, blasting). "Continuous" vibrations are more sustained vibration events over longer periods of time (e.g., jackhammering, drilling). Table 2 describes the human response to different levels of ground-borne vibration for transient and continuous events.

Table 2: Guideline Vibration Annoyance Potential Threshold Criteria[9]

Human Response	Maximum PPV[10] (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.00	0.40

7 L_{max} (Maximum Sound Level) – The maximum sound level for a specified measurement period of time as defined in ASTM E1686.

8 Transportation and Construction Vibration Guidance Manual September 2013 (DOT Document).

9 This is Table 20 from the DOT document.

10 (PPV): Peak Particle Velocity.

Table 3 provides a guideline for vibration criteria to assess the damage potential from ground vibration induced by construction equipment. Thresholds for continuous vibrations are lower than those for transient vibrations and are therefore considered more "conservative". These are standard significance thresholds used in the industry to determine impacts of ground borne vibrations on structures.

Table 3: Guideline Vibration Damage Potential Threshold Criteria[11]

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

The immediate adjacent properties are all modern industrial or commercial buildings. Across Isabel Avenue/Highway 84 to the east are existing single-family residences. Based on Table 3, we have applied the more stringent residential criteria of 1.0 PPV for transient events and 0.50 PPV for continuous events.

State of California CEQA Guidelines and Impact Criteria

The California Environmental Quality Act (CEQA) contains guidelines that evaluate the significance of noise attributable to a proposed project. This would include (but is not limited to) added traffic noise, mechanical equipment noise, and construction noise. CEQA asks the following applicable questions. Would the project result in:

1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
2. Generation of excessive ground borne vibration or ground borne noise levels?
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public-use airport, would the project expose people residing or working in the project area to excessive noise levels?

11 This is Table 19 of the DOT document.

CEQA does not define the noise level increase that is considered "substantial". Typically, the local general plan would establish limits with respect to allowable noise and vibration increases. However, the City of Livermore General Plan does not contain numerical standards of significance for noise increases. For the items above, noise level increases of 3 dBA or less are generally considered less-than-significant. Substantial adverse community response would be expected only for increases of 5 dBA or more.

EXISTING NOISE ENVIRONMENT

Project Site Description

To quantify the existing site noise environment, two monitors continuously measured noise levels along the project property lines to the north and east between 2 and 4 November 2021. Table 4 summarizes measured data and Figure 1, attached, shows the approximate measurement locations. Locations were selected based not only on project setbacks but also on what nearby locations were accessible via public rights-of-way.

Table 4: Measured Environmental Noise Levels

Site	Location	Measured DNL (dBA)
LT-1	Business Park, approximately 10-feet above grade	65
LT-2	Arroyo Bike Trail, approximately 10-feet above grade	67

Site Noise Context

Noise measurements at the project site (see Figure 1), collected data from vehicle pass-bys on nearby roads. Measured on-site noise levels were DNL 65 dB and 67 dB at the project site (see Figure 1). LT-1 was placed near the nearest existing warehouse across from residences, and LT-2 was placed on the closest accessible utility pole across from residences. Adjustments were made, as appropriate, to estimate the change in noise levels from the long-term monitor location to the locations of the nearest residences east of Isabel Avenue.

We have combined cumulative existing and future noise sources that would result from the project's completion. Future project sources include the proposed loading dock noise, rooftop HVAC equipment, parking areas, and estimated traffic contribution, while the existing noise sources are the existing traffic. Adding expected noise contribution to the existing noise environment logarithmically would result in a noise level of approximately DNL 67 dB from all contributing noise sources upon the project's completion.

DNL 29[a] dB [Future HVAC] + DNL 29[b] dB [employee lot] + DNL 52 [c] dB [trucks] = DNL 52 [d] dB [future noise level at receivers]

a = cumulative building rooftop HVAC noise
b = employee parking lot noise
c = truck noise at loading docks

d = cumulative future project sources

DNL 67[e] dB [existing traffic] + DNL 52[e] dB [combined future sources] = DNL 67[f] dB [future noise level at receivers]

e = measured at project site, see **Figure 1**
e = determined from loading docks + HVAC noise + parking lots
f = calculated

See Appendix A for additional information on decibel mathematics.

NOISE IMPACT ASSESSMENT ANALYSIS

We evaluated the following noise sources from the proposed project on the surrounding environment:

- Potential rooftop mechanical equipment noise
- Short-term construction noise and vibration
- Project-related traffic increases

We have drawn the following conclusions from the analysis:

The following summarizes the portion of the CEQA checklist pertaining to noise.

Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

A: Permanent Increase in Noise Levels due to Project-Generated Noise

The owner anticipates that tenant office spaces located on the corners of each building will be mechanically ventilated with typical 5-ton package units located above the offices in each corner of each building. No other outdoor mechanical equipment has been specified at this time. Specific equipment will be confirmed during the design phase.

Preliminary sound power level data has been provided for these 5-ton outdoor package fan units indicating that combined noise from these units sums to approximately DNL 29 dB at the nearest property lines. This assumes 24-hour operation of this equipment (in line with the operation hours of the building). The rooftop parapet is assumed to provide acoustical shielding to nearby neighbors because they would break line-of-sight to the nearest receivers.

Depending on the final equipment placement, as well as any specific parapets, barriers, and shielding provided by buildings (which would reduce noise levels at the property lines), noise levels may vary. We do not expect the noise contribution to be significant in these aspects.

B: Predicted Permanent Increase in Noise Levels due Project Traffic Volumes

It has been communicated by the team that the projected truck trips per day will be approximately as shown below in Table 5.

Table 5: SMP-40 Truck Trips

Hour	Percent	ITE Trips
7 – 9 AM	9.4%	20
9 AM – 4 PM	42.7%	91
4 – 6 PM	12.7%	27
6 – 10 PM	16.4%	35
10 PM – 7 AM	18.8%	40
Total	100 %	213

Overall, the project would result in a net increase in daily trips by 213, amounting to an overall traffic noise DNL increase of approximately 2 dB. Therefore, this would not result in a significant increase in noise levels at existing adjacent properties.

C: Temporary Increase in Noise Levels due to Construction

Construction activities will likely include the use of heavy equipment for grading and other activities, through completion of buildings and landscaping. Heavy trucks would travel to, from, and within the site hauling soil, equipment, and building materials. Smaller equipment, such as jackhammers, pneumatic tools, and saws could also be used throughout the demolition and construction phases in various areas. The noise and vibration associated with these activities would be generated within the entire project area.

Based on our experience with similar projects' construction methods and phasing, our preliminary understanding and assumptions of expected equipment is shown in Table 6. Reference levels for construction equipment are listed in Table 7, both at the reference distance of 50-feet and at 600-feet, which is the closest distance between the project and the residences across Isabel Avenue.

Table 6: List of Typical Construction Equipment and Phasing

Phase	Equipment
Demolition	Concrete/Industrial Saws, Excavators, Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Site Preparation	Graders, Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Grading/Excavation	Excavators, Drill Rig for Shoring Beams (Caisson Drilling), Rubber-Tired Dozers, Tractors/Loaders/Backhoes
Trenching	Tractor/Loader/Backhoe, Excavators
Building Exterior	Cranes, Forklifts, Generator Sets, Tractors/Loaders/Backhoes, Welders
Building Interior/ Architectural Coating	Air Compressors, Aerial Lift
Paving/Landscaping/ Site Concrete	Cement and Mortar Mixers, Paving Equipment, Rollers, Tractors/Loaders/Backhoes

Table 7: Construction Equipment Reference Noise Levels[12]

Typical Equipment	Estimated Maximum Instantaneous L_{max}[13] Noise Level (dBA at 50 feet)	Estimated Maximum Instantaneous L_{max} Noise Level (dBA at 600 feet)
Aerial Lift	83	61
Air Compressors	81	59
Cement and Mortar Mixers	85	63
Concrete/Industrial Saws	76	54
Cranes	83	61
Drill Rig for Shoring Beams (Caisson Drilling)	85	63
Excavators	85	63
Forklifts	83	61
Generator Sets	81	59
Graders	85	63
Paving Equipment	89	67
Rollers	74	52
Rubber-Tired Dozers	85	63
Tractors/Loaders/Backhoes	84	62
Welders	73	51

Actual construction noise levels will vary based on distance to each piece of equipment or work area from the receiver and shielding from adjacent buildings and construction elements. It should be noted that construction activities are prohibited during the specific time period outlined in Section 9.36.080 of the City's Municipal Code. Section 9.36.080 is as follows:

12 Equipment noise levels at 50-feet are from Section 9, Federal Highway Administration Highway Traffic Noise Construction Noise Handbook (August 2006) and Table 12-2, Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

13 L_{max} (Maximum Sound Level) – The maximum sound level for a specified measurement period of time as defined in ASTM E1686.

Section 9.36.080 Hammers, pile drivers, pneumatic tools and similar equipment

The operation between the hours of 6:00 p.m. Saturday to 7:00 a.m. Monday; 8:00 p.m. to 7:00 a.m. on Monday, Tuesday, Wednesday and Thursdays; 8:00 p.m. Friday to 9:00 a.m. on Saturday or at all on city-observed holidays of any pile driver, pneumatic tools, derrick, electric hoist, sandblaster or other equipment used in construction, demolition or other repair work, the use of which is attended by loud or unusual noise, is prohibited. (Ord. 1672 § 2, 2002; Ord. 1128 § 2, 1983; 1960 code § 13B.3(f))

Construction Equipment Schedule

We received the following equipment schedule that CalEEMod utilized for their model for air quality emissions. Table 8 below summarizes the equipment and associated sound levels at the nearest residential property (approximately 600 feet away).

Table 8: Construction Equipment Schedule

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Resulting DNL	Resulting Lmax
Grading	Excavators	2	8	67	66
Grading	Graders	1	8	67	63
Grading	Rubber Tired Dozers	1	8	67	63
Grading	Scrapers	2	8	67	66
Grading	Tractors/Loaders/Backhoes	2	8	67	65
Total Grading Phase	**All Equipment Running Simultaneously**			**70**	**72**
Paving	Pavers	2	8	69	70
Paving	Paving Equipment	2	8	69	70
Paving	Rollers	2	8	66	55
Total Paving Phase	**All Equipment Running Simultaneously**			**70**	**73**
Building Construction	Cranes	1	7	67	61
Building Construction	Forklift	3	8	67	66
Building Construction	Generator Sets	1	8	67	59
Building Construction	Tractors/Loaders/Backhoes	3	7	68	67
Building Construction	Welders	1	8	66	51
Total Building Construction	**All Equipment Running Simultaneously**			**69**	**70**
Architectural Coating	Air Compressors	1	8	67	59

It should be noted that the DNL was calculated using daytime construction noise levels for daytime hours for the listed hours of operation and measured nighttime hours from existing traffic. Despite restrictions of nighttime construction activities, from the noise levels shown above in Table 8, it could be possible to exceed the General Plan Objectives as follows:

Objective N-1.5 P3

- As shown above in Table 8, with all the phases running construction equipment as intended, the resulting Lmax would range between 70 and 73 dBA. Since construction is not permitted during nighttime hours, only the daytime Lmax criterion of 70 dBA would be applicable and would not be met. Therefore, it will be necessary to implement the mitigation measures shown below.

Due to these possibilities, the following is a list of measures that are required to be adopted by the contractor to reduce the impact of construction noise on neighbors:

1. Consistent with the Livermore Municipal Code, construction will be limited to weekdays between the hours of 7:00 a.m. and 8:00 p.m. and Saturdays through Sunday between the hours of 9:00 a.m. and 6:00 p.m.
2. There are residences located approximately 600 feet from the project site. Thus, to help reduce the impact of noise construction, it will be necessary that a barrier be built prior to the planned permanent 10-foot tall berm on the east side of the project. If this is not feasible, we recommend building the planned permanent 10-foot tall berm before construction activities. This will be necessary to reduce construction noise impacts on the residences. The barrier/berm should be 10 feet tall. This would help reduce the construction noise impacts on the residences by approximately 10 dB.
3. The barrier can be field-built provided they meet the following criteria:
    a. Minimum surface density of 4 psf.

       Many constructions could meet the surface density requirement. For example, a stud wall with exterior-grade plywood sheathing and a stucco finish (or two layers of 5/8-inch thick plywood) would meet this requirement.

    b. The barrier should be free of cracks and drainage holes/slots along the bottom of the barrier be kept to a minimum. Where needed, they should be covered by 1 psf mass-loaded vinyl flaps (e.g., Kinetics KNM-100) so water can flow around the vinyl and still drain.

    c. Joints between sheathing layers be offset by 16 inches minimum.
4. Contractors shall utilize “quiet” models of air compressors and other stationary noise sources where technology exists.
5. Internal combustion engine-driven equipment shall be equipped with mufflers which are in good condition and appropriate for the equipment.

6. Stationary noise-generating equipment, such as air compressors and portable power generators, shall be located as far away as possible from adjacent property lines.
7. Staging areas and construction material areas shall be located as far away as feasible from adjacent residences.
8. All unnecessary idling of internal combustion engines should be prohibited.
9. The contractor should designate a "noise disturbance construction superintendent" who will be responsible for tracking and responding to any complaints about construction noise. The noise disturbance construction superintendent will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures are implemented to correct the problem. The telephone number for the noise disturbance construction superintendent will be posted at the construction site and included in any construction notices sent to neighbors.

Would the project result in generation of excessive ground-borne vibration or ground-borne noise levels?

A: Permanent Increase in Vibration Levels due to Project-Generated Vibration

The planned use for the site, as warehouse buildings, is not expected to generate significant amounts of ground-borne noise or vibration.

B: Temporary Increase in Vibration Levels due to Construction

The nearest and most sensitive adjacent receivers include residences to the east approximately 500 feet from the closest area of construction on the project site. Industrial-zoned parcels to the north are assumed to be less sensitive.

Project construction may include activities such as the use of concrete saws, excavation and grading, and the use of rolling stock equipment (tracked vehicles, compactors, etc.). Typical construction vibration levels at 50-feet are listed in Table 9, below. Most of the construction will occur set back from the property line. As indicated in the criteria section above, the risk of damage to nearby structures may begin to occur at a limit of 1.0 in/sec PPV for transient vibration events and 0.50 PPV for continuous events.

Table 9: Example Construction Vibration Levels[14]

Equipment	PPV at 50 ft. (in/sec)[15]
Vibratory Roller	0.049
Hydraulic Breaker	0.03 to 0.08
Large Bulldozer	0.03
Loaded Trucks	0.03
Excavator	0.03
Caisson/pier drilling	0.03
Jackhammer	0.01
Small Bulldozer	0.001
Crane, Forklift, Bobcat	No significant vibration

Based on the vibration levels shown in Table 9, construction equipment is not expected to cause structural damage to adjacent properties because project construction is not expected to exceed the thresholds for new residential buildings or commercial/industrial structures as shown above in Table 3. Ground-borne noise would also not be expected to be significant at these vibration levels.

FUTURE LOADING DOCK AND INTRA-PROJECT TRAFFIC NOISE

Future Loading Dock Calculation Methodology

Operational noise from the proposed facility is expected to consist primarily of tractor-trailers accessing loading dock areas. To estimate truck noise at the proposed facility, we referenced recently measured noise levels at a local distribution facility which involved semi-trucks similar in size to those that are expected to access the proposed project's facility.

Calculations for resulting noise levels due to on-site truck and car trip generation durations and activities were based on the measurements at this local distribution facility with ancillary information provided to us for that project on 15 February 2018 and 20 December 2023.

Based on the assumptions described below, estimated noise levels were then compared to applicable criteria to determine if noise from the proposed facility would exceed the City's noise goals (described above) at adjacent residences.

14 Table 12-2, Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

15 Using a value of n = 1.5 per FTA recommendation, where n is the attenuation rate through the ground

Traffic volumes produced by the proposed project were provided by TJKM in December 2023. Their study estimated that a total of 213 truck trips[16] would occur at the facilities throughout the 24 hours of operation. Overton Moore Properties provided further details about the potentially likely distribution of those trucks each hour throughout the 24-hour operation period.

Intra-Project Traffic Analysis Methodology

Intra-project traffic noise will consist of traffic noise associated with future warehouse employee vehicles within the designated parking lots. To estimate vehicle noise at the employee parking lots, we referenced the TJKM provided traffic volumes for the proposed project.

Noise Source Analysis and Assumptions

Future Loading Docks

Our analysis estimated future noise from the facility based on the following assumptions discussed with the client via email, and per the overall site plan:

1. Trucks will enter and exit the site from Atlantis Court and Challenger Street, from the north (via Discovery Drive).
2. Non-truck noises associated with loading/unloading activity (i.e., forklifts, rolling doors, carts, pallet crushing, items dropping), are assumed to be located near the dock doors and are included in our analysis.
3. An average truck trip (not including unloading/loading) is estimated to last for a cumulative period of about 2 minutes and be at least 1025 feet from the nearest residential property line.
4. Trucks occupy the loading dock in their loading area that is nearest to noise-sensitive receiver (Residents across Isabel Avenue, to the east of the building).
5. Total number of loading docks: 130 (68 in Building 1 and 62 in Building 2)
6. Number and distribution of truck trips is based on TJKM's traffic study estimate, with approximately 213 total truck trips per 24-hour period (continuous 24/7 operation) distributed as follows:
    - AM Peak is 7-9 AM – 9.4%
    - 9-4 PM – 42.7%
    - PM Peak is 4 PM - 6 PM – 12.7%
    - 6 PM - 10 PM – 16.4%
    - 10 PM - 7 AM – 18.8%

[16] Email correspondence provided on 12/20/23 confirmed the 213 daily truck trips as 20% of total vehicle trips based in ITE data (TJKM Study)

7. Building 2 provides substantial acoustical shielding for most of Building 1 and its operations to the eastern residents. Because of this, Building 1 is not expected to have a meaningful impact on the residential receivers' sound environment to the east.
8. Loading docks in Building 2 are located on the north and south facades, configured to maintain the maximum possible distance away from the residential area to the east.
9. North-facing docks of Building 2 will have a direct line-of-sight to the warehouse to the north. We assume that some shielding is provided by the perpendicular orientation of the docks of Building 1, which would slightly reduce our overall calculated noise contribution of the loading docks to the northern warehouse receivers because of the partial line-of-sight.
10. 24-hour operation assumed.
11. Loading docks not in use on each building have closed doors.
12. A typical truck "trip" consists of the following events (estimated sound levels based on aforementioned measurements at similar facilities):
    a. Truck passby (arrival, departure at slow speed): 69 dBA at 30 feet
    b. Truck airbrakes: 72 dBA at 25 feet
    c. Truck backup alarm: 79 dBA at 30 feet
    d. Brief idle before engine shutoff: 70 dBA at 25 feet
    e. Truck engine ignition and airbrakes: 71 dBA at 25 feet
    f. Truck accelerating from stop: 74 dBA at 25 feet
    g. Truck noise source reference heights[17] (above grade)
        i. Passby, brief idle, acceleration, and ignition: 8 feet
        ii. Back-up beeper and airbrake: 2.5 feet
        iii. Topographical site analysis included in Section C3.1 of the Grading and Drainage Plan show potential terrain shielding of about three feet between the dock elevation and receivers to the east of Isabel Avenue

Intra-Project Traffic Noise

Our analysis estimated future noise from the facility parking lots is based on the following assumptions:

1. Employees will enter and exit the site from Atlantis Court and Challenger Street, from the north (via Discovery Drive).
2. Once on site, vehicles will move at 15 miles per hour or less.
3. Vehicles will be spread out evenly amongst the seven parking areas.

[17] Truck source heights excerpted from Caltrans Technical Noise Supplement document (TeNS) document dated October 1998.

4. An average vehicle trip is estimated to last for a cumulative period of about 2 minutes and be at least 550 feet from the nearest residential property line.
5. Similar proportional percentages were assumed for vehicle trips in the project parking lots as were the truck trips, as shown in the distribution below.
    - AM Peak is 7 AM - 9 AM- 9.4%
    - 9 AM – 4 PM -42.7%
    - PM Peak is 4 PM -6 PM -12.7%
    - 7 PM - 10 PM 16.4%
    - 10 PM - 7 AM 18.8%

Estimated Future Noise Levels

Future Average Noise Levels (CNEL/DNL)

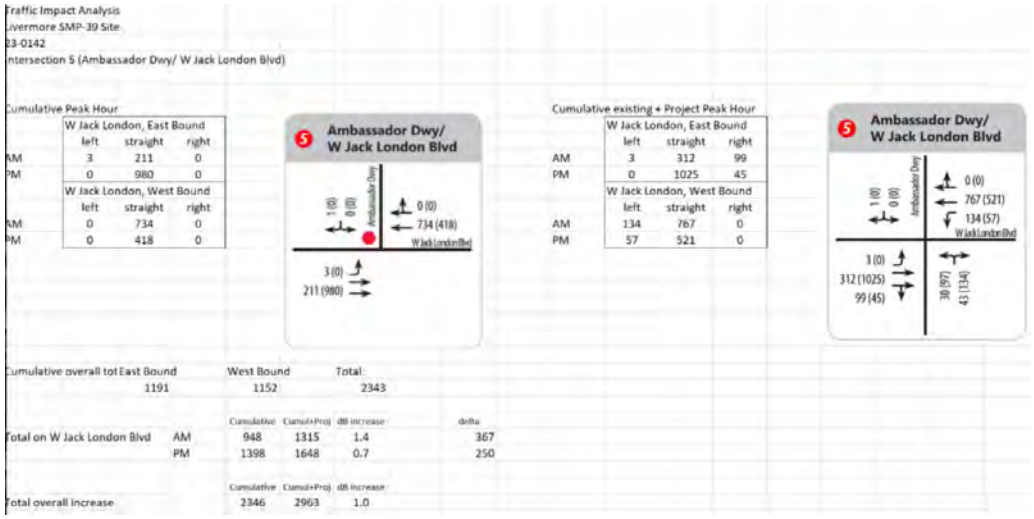
We estimated noise levels at local receptors from the sources described in the previous section. To account for future increases in local traffic noise levels (growth in traffic on Isabel Avenue and other local roadways), we added 1 dB DNL to the measured levels[18] (see Table 4 above).

We calculated the acoustical impact of project traffic increase due to both projects SMP-39 and SMP-40 with the provided peak hour traffic volumes for the cumulative without project and cumulative with project scenarios. The analysis used the FHWA-RD-77-108 traffic noise calculation model. The figures below show the various calculations for the intersections of interest (i.e., 5, 9, 10, and 11) as provided to us via the traffic volume study developed for both SMP-39 and SMP-40.

Figure A: Intersection Map Legend

[18] The California Department of Transportation assumes a traffic volume increase of three-percent per year, which corresponds to a 1 dBA increase in DNL over a ten-year period.

Figure B: Traffic Volume Analysis for Intersection 5



Traffic Impact Analysis
Livermore SMP-39 Site
23-0142
Intersection 5 (Ambassador Dwy/ W Jack London Blvd)

Cumulative Peak Hour

	W Jack London, East Bound		
	left	straight	right
AM	3	211	0
PM	0	980	0
	W Jack London, West Bound		
	left	straight	right
AM	0	734	0
PM	0	418	0

Ambassador Dwy/ W Jack London Blvd
1 (0)
0 (0)
0 (0)
734 (418)
3 (0)
211 (980)

Cumulative existing + Project Peak Hour

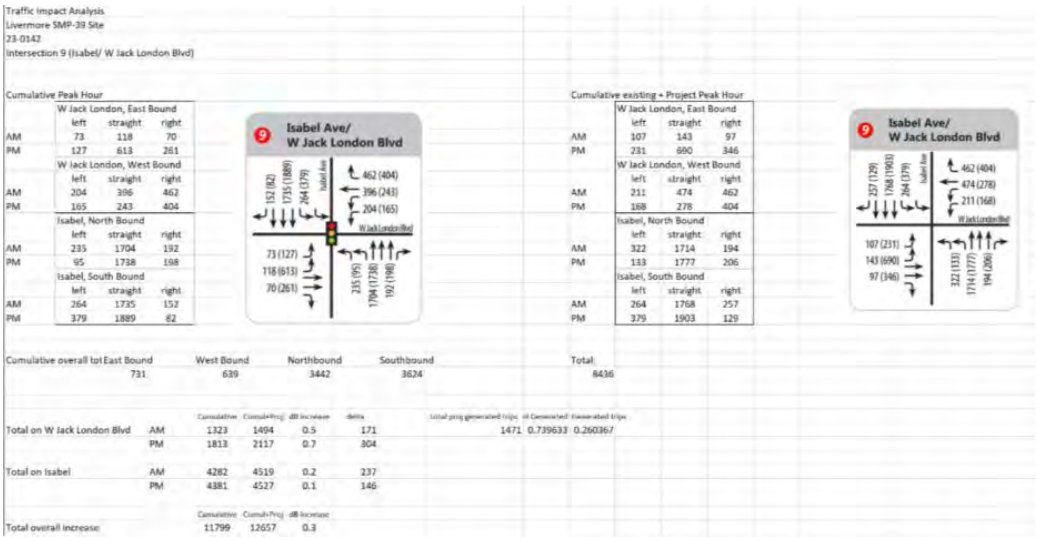
	W Jack London, East Bound		
	left	straight	right
AM	3	312	99
PM	0	1025	45
	W Jack London, West Bound		
	left	straight	right
AM	134	767	0
PM	57	521	0

Ambassador Dwy/ W Jack London Blvd
1 (0)
0 (0)
0 (0)
767 (521)
134 (57)
3 (0)
312 (1025)
99 (45)
38 (97)
43 (134)

Cumulative overall tot East Bound 1191 | West Bound 1152 | Total: 2343

		Cumulative	Cumul+Proj	dB increase	delta
Total on W Jack London Blvd	AM	948	1315	1.4	367
	PM	1398	1648	0.7	250
Total overall increase		Cumulative 2346	Cumul+Proj 2963	dB increase 1.0	

Figure C: Traffic Volume Analysis for Intersection 9



Traffic Impact Analysis
Livermore SMP-39 Site
23-0142
Intersection 9 (Isabel/ W Jack London Blvd)

Cumulative Peak Hour

	W Jack London, East Bound		
	left	straight	right
AM	73	118	70
PM	127	613	261
	W Jack London, West Bound		
	left	straight	right
AM	204	396	462
PM	165	243	404
	Isabel, North Bound		
	left	straight	right
AM	235	1704	192
PM	95	1738	198
	Isabel, South Bound		
	left	straight	right
AM	264	1735	152
PM	379	1889	82

Isabel Ave/ W Jack London Blvd
152 (82)
735 (1889)
264 (379)
462 (404)
396 (243)
204 (165)
73 (127)
118 (613)
70 (261)
235 (95)
1704 (1738)
192 (198)

Cumulative existing + Project Peak Hour

	W Jack London, East Bound		
	left	straight	right
AM	107	143	97
PM	231	690	346
	W Jack London, West Bound		
	left	straight	right
AM	211	474	462
PM	168	278	404
	Isabel, North Bound		
	left	straight	right
AM	322	1714	194
PM	133	1777	206
	Isabel, South Bound		
	left	straight	right
AM	264	1768	257
PM	379	1903	129

Isabel Ave/ W Jack London Blvd
257 (129)
1768 (1903)
264 (379)
462 (404)
474 (278)
211 (168)
107 (231)
143 (690)
97 (346)
322 (133)
1714 (1777)
194 (206)

Cumulative overall tot East Bound 731 | West Bound 639 | Northbound 3442 | Southbound 3624 | Total: 8436

		Cumulative	Cumul+Proj	dB increase	delta	
Total on W Jack London Blvd	AM	1323	1494	0.5	171	1471 0.739633 0.260367
	PM	1813	2117	0.7	304	
Total on Isabel	AM	4282	4519	0.2	237	
	PM	4381	4527	0.1	146	
Total overall increase		Cumulative 11799	Cumul+Proj 12657	dB increase 0.3		

Figure D: Traffic Volume Analysis for Intersection 10

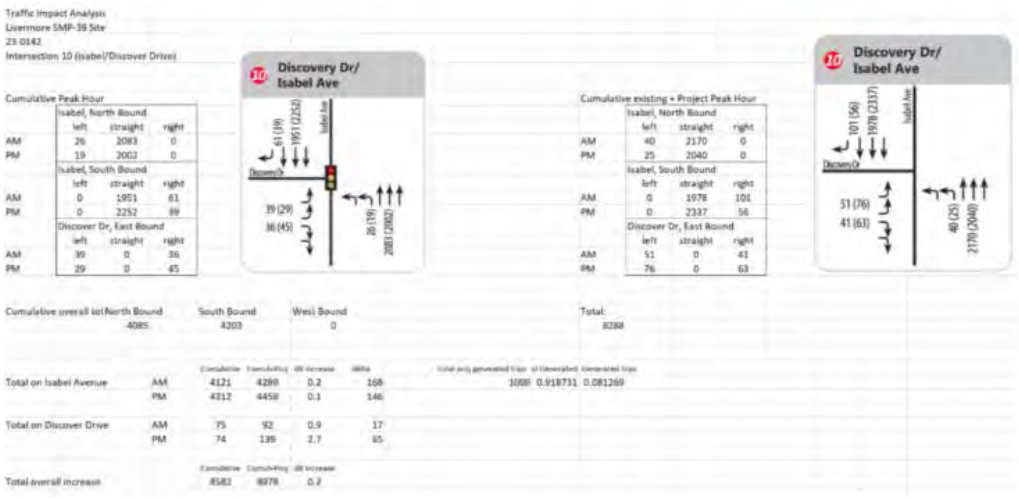
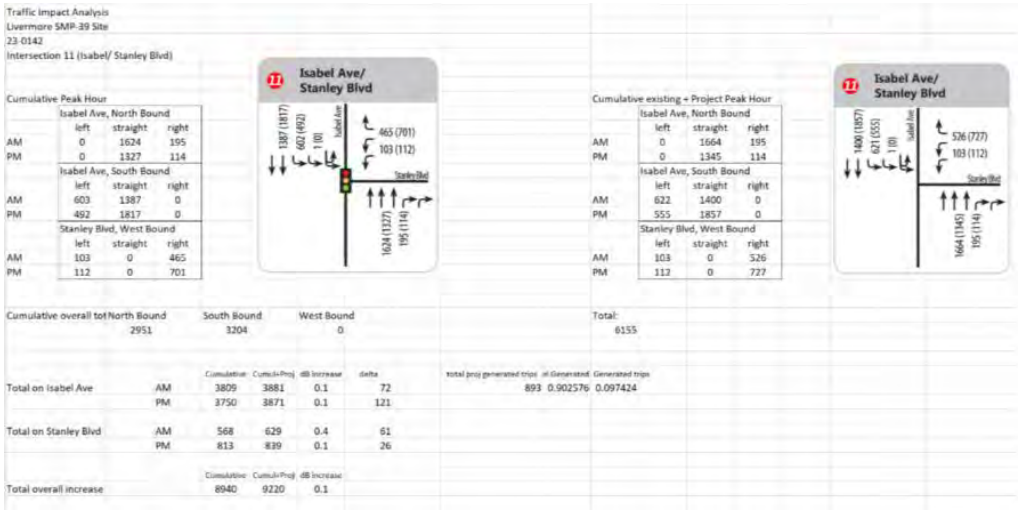


Figure E: Traffic Volume Analysis for Intersection 11



As shown above, the increase in traffic due to the project would be approximately 1 to 2 dBA to the DNL when combined.

Table 10 below summarizes the estimated DNL levels at the closest property plane to the east of the building, under the assumption that the facility would receive its trucking and commuting employee activities during the 24 hours of operation.

Table 10: Calculated 24-Hour Future Facility Noise at Nearest Noise-Sensitive Land Uses: CNEL/DNL, dBA

Nearby Receiving Locations	Existing Noise at Receiver (Residences)	Loading Docks at Receiver	Intra-Project Traffic Noise Levels at Receiver	Combined Existing plus Project	Change (dBA)
East Property Line (Residences across Isabel)	67	60	32	69	+2
North Property Line (Neighboring Warehouse)	65	65	36	68	+3

The calculated increase in DNL at the residential property line with the project and future traffic noise levels (near term 2025) will be approximately 2 dB. At the northern industrial uses, a DNL 3 dB change is predicted. A change of 3 dB or less is not expected to be noticeable and is not considered significant.

Our calculations of maximum noise levels assume that the trucks operating at the closest docks to the residences will be active at the same proportion as stated above. The noise analysis also assessed the increase in traffic noise levels resulting from project traffic in combination with future traffic noise level increases on the surrounding roadway network resulting from other anticipated development in the region. The resultant cumulative increase is 3 dB. This would not be considered a significant increase to the predicted project operation noise environment.

Future L_{50} Noise Levels

The following assumptions were made about the 24-hour operation of the project in our estimated L_{50} calculations:

- The volume of expected truck trips is consistent with the truck trip distribution established in item 6 of the Noise Source Analysis and Assumptions section (i.e., a maximum of 5 trucks per hour at nighttime, or 18.8% of trucks between 10:00 pm and 7:00 am).
- The 6- and 10-foot berms will be incorporated into the project.
- Backup alarms are expected to be at a height of approximately 2.5 feet.
- Trucks do not move great distances when their backup alarm is engaged.

Table 11 summarizes the estimated daytime and nighttime L_{50} for the proposed project. Since backup alarms for nighttime are predicted to occur less than 15 minutes per hour, the criterion can increase by 5 dBA per Policy P2. However, since back up alarms would be more than 15 minutes per hour during the daytime, no additional increases are accounted for in our analysis.

Table 11: Calculated 24-Hour Future Facility L_{50} Value: L_{50}, dBA

Time of Day	Estimated L_{50} Value	Criterion L_{50} Value
Daytime (7am-10pm)	50 dBA	55 dBA
Nighttime (10pm-7am)	45 dBA	50 dBA

Although our calculations of overall operational L_{50} noise levels do not exceed the allowable values stated by the City (i.e., Policy P1, Objective N-1.5), backup alarm noise may be audible at residences to the east during quieter nighttime hours. It is our understanding that other current similar projects in the vicinity have caused local neighbor complaints due to trucks' back-up alarms at those locations in the past.

Back-up alarms were assumed to be 79 dB at a reference distance of 30 feet. The distance attenuation between the loading dock to the façade of the nearest residence provides a 31 dB reduction. Although backup alarms would be audible from the residences, the L_{50} threshold of 50 dBA will not be exceeded due to the limited number of trips during this timeframe (estimated at 40 trips in 9-hour time frame).

Calculations assumed the source height of these backup alarms to be approximately 2.5 feet from grade. The incorporation of the proposed 6- and 10-foot-tall berms would adequately obstruct the direct line-of-sight of these backup alarms to the residential receivers. The dimensions of the proposed berms are calculated to reduce intermittent noise levels (such as those produced by backup alarms) by up to 6 dB at the closest residents.

Quieter backup alarms (aka "squawkers"), which are becoming more prevalent in delivery vehicles for various large e-commerce websites, and other vendors, may be used by trucking operators visiting this site in the future, therefore beeper noise has the potential to be reduced. A best practice for consideration would be to implement these alternative devices in other truck populations in the future.

CONCLUSIONS AND COMMENTS

1. Future cumulative project site noise from rooftop HVAC equipment, loading dock-generated noise, stationary trucks, and employee vehicles, is not expected to significantly impact receivers to the east or to the north. The calculated increase in CNEL/DNL for the warehouse receivers to the north will be 3 dB, while the closest residential receivers across Isabel Avenue will have a 2dB increase from the existing environment under the expected 24-hour operations.

   A change of 3 dB or less is not considered significant for residents to the east or the commercial neighbors to the north of the project site. A cumulative DNL of 69 dB for the receivers does not exceed the industrial 75 dB DNL threshold defined in Table 9-7 of the Livermore Noise Element as well as the L_{50} level from Objective N-1.5 of the General Plan.

   Considering the 1,025-foot distance between the nearest loading dock and the closest residents, and the trucks being a stationary source rather than a moving vehicle once the leaving the loading dock area of the project site, the city's L_{50} criterion is not applicable once a truck begins moving closer to the residential area. Given the minority of expected project truck trips conducted in the nighttime

hours (less than 5 trips per hour on average from 10 PM to 7 AM), noise from stationary trucks at the nearest loading dock are expected to comply with the City's L_{50} nighttime requirement assuming backup alarms are not continuously operating for more than 30 minutes per hour.

2. Temporary construction noise will impact the residences, and thus, it will be necessary to incorporate mitigation measures such as a 10-foot-tall berm or barrier on the east side of the project to reduce the noise by 10 dB.

3. It is our understanding that there are no State or Federal requirements for noise levels of backup alarms except for OSHA, which only requires them to be "significantly louder" than the surrounding environment. Because the background noise levels around most facilities are not known, manufacturers typically increase the alarm volume to compensate.

   Best practices to reduce alarm audibility at the facility to be evaluated would be to require users to limit alarm volume levels, employ signal personnel, lights, and other means to notify people about ongoing truck activities within the facility.

* * *

Cc: Jennifer Freedman (jfreedman@omprop.com)

APPENDIX A: FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL NOISE

This section provides background information to aid in understanding the technical aspects of this report.

Three dimensions of environmental noise are important in determining subjective response. These are:

- The intensity or level of the sound
- The frequency spectrum of the sound
- The time-varying character of the sound

Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dBA), with 0 dBA corresponding roughly to the threshold of hearing.

The "frequency" of a sound refers to the number of complete pressure fluctuations per second in the sound. The unit of measurement is the cycle per second (cps) or hertz (Hz). Most of the sounds, which we hear in the environment, do not consist of a single frequency, but of a broad band of frequencies, differing in level. The name of the frequency and level content of a sound is its sound spectrum. A sound spectrum for engineering purposes is typically described in terms of octave bands, which separate the audible frequency range (for human beings, from about 20 to 20,000 Hz) into ten segments.

Many rating methods have been devised to permit comparisons of sounds having quite different spectra. Surprisingly, the simplest method correlates with human response practically as well as the more complex methods. This method consists of evaluating all of the frequencies of a sound in accordance with a weighting that progressively de-emphasizes the importance of frequency components below 1000 Hz and above 5000 Hz. This frequency weighting reflects the fact that human hearing is less sensitive at low frequencies and at extreme high frequencies relative to the mid-range.

The weighting system described above is called "A"-weighting, and the level so measured is called the "A-weighted sound level" or "A-weighted noise level." The unit of A-weighted sound level is sometimes abbreviated "dBA." In practice, the sound level is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting characteristic. All U.S. and international standard sound level meters include such a filter. Typical sound levels found in the environment and in industry are shown in Figure A-1.

Although a single sound level value may adequately describe environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise is a conglomeration of distant noise sources, which results in a relatively steady background noise having no identifiable source. These distant sources may include traffic, wind in trees, industrial activities, etc. and are relatively constant from moment to moment. As natural forces change or as human activity follows its daily cycle, the sound level may vary slowly from hour to hour. Superimposed on this slowly varying background is a succession of

identifiable noisy events of brief duration. These may include nearby activities such as single vehicle pass-bys, aircraft flyovers, etc. which cause the environmental noise level to vary from instant to instant.

To describe the time-varying character of environmental noise, statistical noise descriptors were developed. "L10" is the A-weighted sound level equaled or exceeded during 10 percent of a stated time period. The L10 is considered a good measure of the maximum sound levels caused by discrete noise events. "L50" is the A-weighted sound level that is equaled or exceeded 50 percent of a stated time period; it represents the median sound level. The "L90" is the A-weighted sound level equaled or exceeded during 90 percent of a stated time period and is used to describe the background noise.

As it is often cumbersome to quantify the noise environment with a set of statistical descriptors, a single number called the average sound level or "L_{eq}" is now widely used. The term "L_{eq}" originated from the concept of a so-called equivalent sound level which contains the same acoustical energy as a varying sound level during the same time period. In simple but accurate technical language, the L_{eq} is the average A-weighted sound level in a stated time period. The L_{eq} is particularly useful in describing the subjective change in an environment where the source of noise remains the same but there is change in the level of activity. Widening roads and/or increasing traffic are examples of this kind of situation.

In determining the daily measure of environmental noise, it is important to account for the different response of people to daytime and nighttime noise. During the nighttime, exterior background noise levels are generally lower than in the daytime; however, most household noise also decreases at night, thus exterior noise intrusions again become noticeable. Further, most people trying to sleep at night are more sensitive to noise. To account for human sensitivity to nighttime noise levels, a special descriptor was developed. The descriptor is called the L_{dn} (Day/Night Average Sound Level), which represents the 24-hour average sound level with a penalty for noise occurring at night. The L_{dn} computation divides the 24-hour day into two periods: daytime (7:00 am to 10:00 pm); and nighttime (10:00 pm to 7:00 am). The nighttime sound levels are assigned a 10 dBA penalty prior to averaging with daytime hourly sound levels.

For highway noise environments, the average noise level during the peak hour traffic volume is approximately equal to the L_{dn}.

The effects of noise on people can be listed in three general categories:

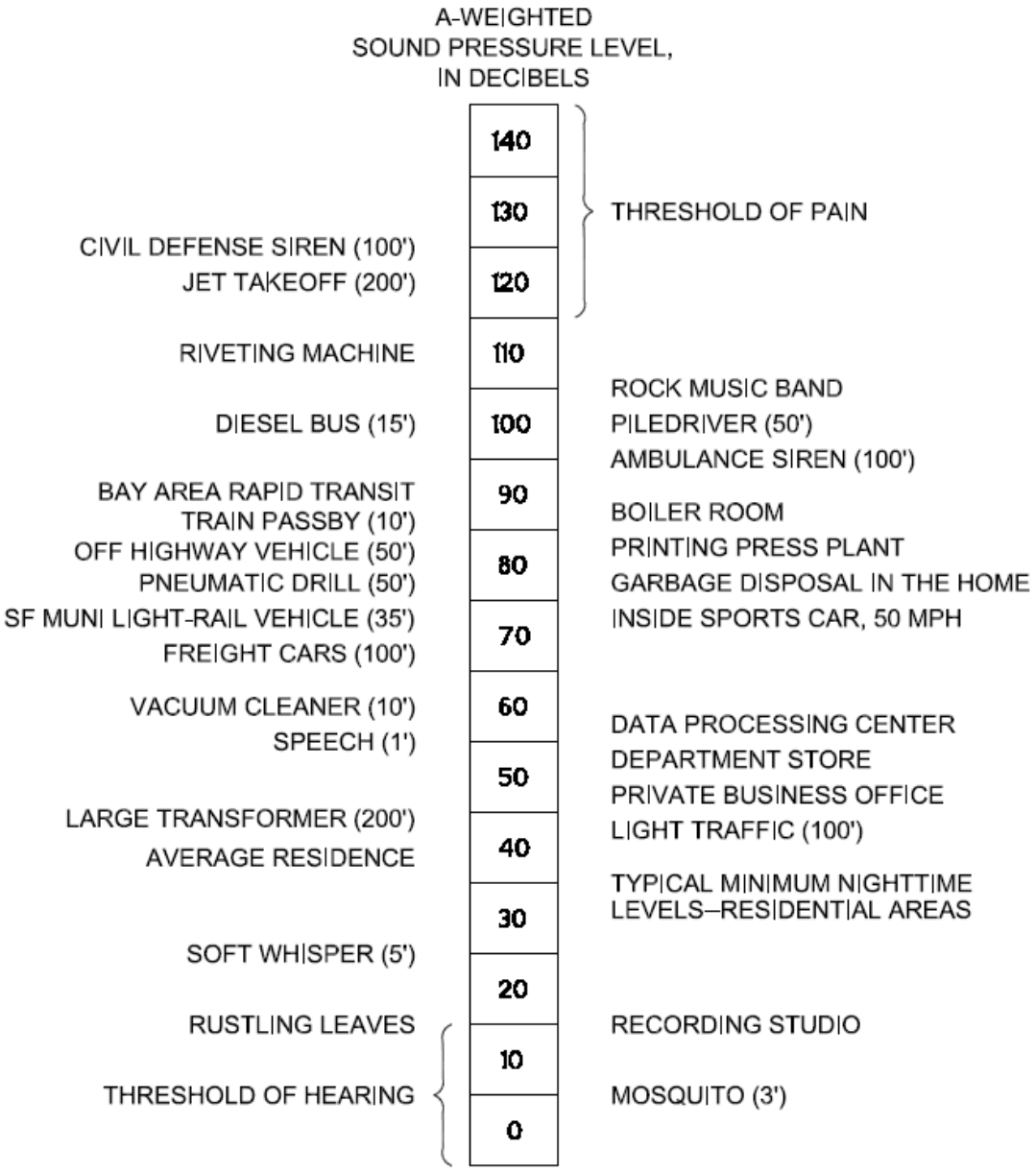
- Subjective effects of annoyance, nuisance, dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as startle, hearing loss

The sound levels associated with environmental noise usually produce effects only in the first two categories. Unfortunately, there has never been a completely predictable measure for the subjective effects of noise nor of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and habituation to noise over time.

Thus, an important factor in assessing a person's subjective reaction is to compare the new noise environment to the existing noise environment. In general, the more a new noise exceeds the existing, the less acceptable the new noise will be judged.

With regard to increases in noise level, knowledge of the following relationships will be helpful in understanding the quantitative sections of this report:

Except in carefully controlled laboratory experiments, a change of only 1 dBA in sound level cannot be perceived. Outside of the laboratory, a 3 dBA change is considered a just-noticeable difference. A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. A 10 dBA change is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse community response.



TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY

FIGURE A1

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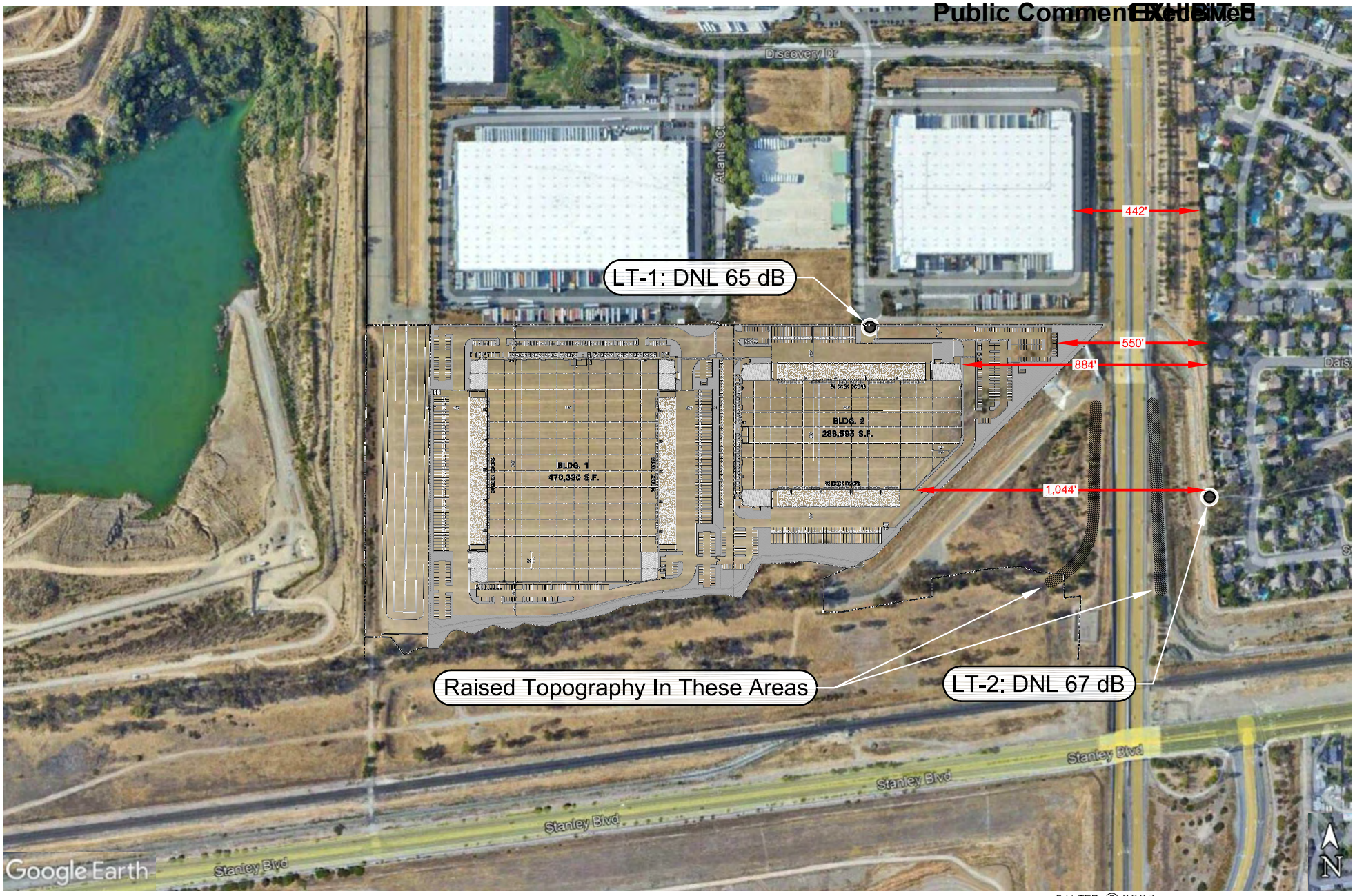

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OAKS BUSINESS PARK – SMP–40 MEASUREMENT LOCATIONS AND MEASURED NOISE LEVELS

FIGURE 1

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